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A Course of Lectures
ON
THE NATURE AND TREATMENT OF DEFORMITIES.

DELIVERED AT THE ROYAL ORTHOPÆDIC HOSPITAL, MAY 1860.

BY

RICHARD WM. TAMPLIN, F.R.C.S.,

SURGEON TO THE HOSPITAL.

LECTURE I.

GENTLEMEN,—In compliance with the rules of this Hospital, I again have the honour of appearing before you to deliver the annual course of lectures.

It is customary to commence the course with what is called an "Introductory Lecture". This is absolutely necessary at our large hospitals and medical schools, in order that the new students may have their duties laid before them at the outset, in such a manner that their attention shall be directed to those branches of their general professional education, upon which their knowledge of medicine and surgery is to be based; and also that the importance and absolute necessity of the close study and observation of disease may be fully impressed upon their minds during the short period that is to be allotted to them for the acquisition of practical information.

Many facilities are presented to the lecturer for this object, both in taking a review of the science of medicine and surgery, and in placing before the students the numerous brilliant examples of distinguished talent and well rewarded industry, which the history of the profession affords. In this particular branch of the science, however, it is not at all times necessary or useful. I have therefore determined on this occasion to place before you the nature of the cases which fall under our observation, with such general remarks as appear to me to be interesting. In the subsequent lecture, I shall take each separate deformity in its turn—the plan adopted on former occasions.

The cases, then, gentlemen, which you will find present themselves under the term "deformities", embrace every joint in the body, and include diseases of the bones, joints, and muscles, and affections of the nervous system. Thus there are contractions and diseases of the toes, feet, knees, hips, spine, the articulation of the lower jaw, the shoulder, the elbow, the wrist and fingers. The subject, therefore, embodies the whole of the voluntary muscles, as well as the articulations; and in the investigation of their causes, organic or functional disease or derangement will be found the frequent object of inquiry. Hence, although this is regarded as a branch of surgery, yet it is a branch which demands a sound knowledge of anatomy, surgery, and medicine, without which no one can safely, successfully, or conscientiously undertake the treatment, excepting only the more simple cases, such as have fallen within the capacity of the mechanist and the empiric.

Deformity, then, becomes an especial object of study in the education of those who are destined to enter the medical profession; and although comparatively few have hitherto directed particular attention to the subject, the time has arrived when it behoves every member of the profession who is desirous of keeping pace with the daily improvements in the science, and of increasing its general usefulness, to devote some time to the investigation of the subject, and to take advantage of the opportunities which now present themselves at this Hospital. One of the objects for which it was founded was, that the practice here adopted might be diffused throughout the kingdom; and I may be permitted to say, that we, the medical officers, have reason to congratulate ourselves upon the attendance of some of the leading and most useful members of the profession—men whose lives have been devoted to one continued study of the science, and whose contributions to it must ever entitle them to the gratitude and respect of the profession at large. Noble examples are thus held up to us, especially to the junior members of the profession, to preserve our minds free from bigotry and prejudice, so that we may be enabled fairly to investigate any and every new practice which tends to the advancement of the science and the consequent relief of suffering humanity. This is one of the great objects for which we live; and therefore, by neglecting these opportunities—opportunities now within the reach of all—we commit a species of self sacrifice, proving ourselves unworthy of our calling, and act as stumbling-blocks in the way of our profession.

1. *Congenital Deformities.* The first class of deformities, to which I shall allude to-day, is the congenital. Congenital contraction or deformity of the *toes* is but seldom met with; malformations are, of course, excluded.

In the *ankle-joint*, however, we have four distinct varieties, each corresponding with some one of the motions of that articulation. 1, the inverted position, called talipes varus—this is the most common congenital deformity affecting the ankle; 2, the everted or talipes valgus; 3, the flexed, or talipes calcaneus; 4, the everted, combined with contraction of the gastrocnemius—one of the most rare of deformities.

In the *knee-joint*, I might almost venture to say, the only contraction is the flexed or semi-flexed position. I have seen but few exceptions; and in those the knees were contracted somewhat beyond the full extended position.

In the *hip*, the joint most rarely affected with congenital deformities, we find the flexed and adducted position, and congenital dislocation of one or both hips.

In the *spine*, congenital deformity in the infant is seldom seen; and when it is met with, the spine is most frequently found to be curved posteriorly. I have seen instances of lateral curvature, confined however to the middle and lower dorsal and upper lumbar vertebræ, and invariably to the left side, one preparation of which I have in my possession. I have also seen one instance in which the true rachitic condition of the spine and bones generally coexisted. In the cervical vertebræ we have wry-neck as a congenital deformity, and a rigid condition of one or both of the sterno-mastoid muscles is occasionally met with in infants.

In the *shoulder-joint*, I do not remember having seen a single case of congenital contraction.

In the *elbow*, we find contraction in the extended position, combined with contraction of the wrists in the flexed position, malformation of the elbow-joint being apparent in these cases.

In the *wrists*, there have been but few instances of contraction in the flexed position without malformation. In fact only three instances have fallen under my observation out of 18,000 cases. It is not, however, so rarely met with in combination with malformation. We have had out-patients, a few weeks old, in this condition; one having six fingers on the affected hand, without a thumb, the arm being one inch shorter than its fellow, and fixed in the straight or extended position. I have also had two cases in private, in which both arms were fixed in the same position, the wrists flexed, the knees extended; and in one of these cases both gastrocnemii muscles were also contracted. In this state, the patients are unable to feed themselves, or to use the hand otherwise than with the arm extended.

In the *fingers*, the only congenital deformity is the flexed or semi-flexed, and this often depends on deficiency of the skin, extending from the palm of the hand to the last phalanx. Of course, the numerous cases of malformation are excluded.

2. *Non-congenital Deformities* form a far more numerous class, as will be readily supposed, if the causes are considered.

First, the *toes* are found to be commonly contracted,—the second most frequently, the great-toe occasionally, and not unfrequently the whole, with or without contraction or deformity of the ankle-joint.

In the *ankle-joint*, we have all the deformities mentioned in the congenital classification, with the addition of one other, viz., talipes equinus, or simple elevation of the heel. This deformity is by some persons stated to be congenital, but I have never yet seen a congenital case.

In the *knee-joint*, we have the same contractions as in the congenital, viz., in the flexed and extended positions; the inward inclination, or genu valgum; outward, or genu extrorsum; and many of the contractions in the flexed position present instances of semi-rotation of the tibia upon the femur, with partial, and at times complete, dislocation backwards.

In the *hip-joint*, there is the flexed and adducted, as in the congenital, differing however most materially, inasmuch as the non-congenital is most frequently combined with dislocation of the femur on the dorsum of the ilium, as will be seen hereafter.

In the *spine*, we have three distinct varieties of non-congenital deformity, viz., lateral curvature, with more or less rotation of the vertebræ; posterior curvature; and angular curvature, with disease of the bodies of the vertebræ. In the cervical vertebræ we have wry-neck, as in the congenital form, but depending on various and important causes.

The *shoulder-joint* is the subject of contraction, as is the *elbow*—commonly in the flexed position. The fore-arm is contracted in the pronated, and the *wrist* and *fingers* in the flexed, occasionally in the extended position.

Causes of Congenital Deformity. If you will direct your attention to the varieties I have pointed out, and compare the congenital with the non-congenital deformities, you will perceive that each of the former presents itself in the non-congenital form; but, as I have remarked to you, the latter are far more numerous. This, gentlemen, leads us into an inquiry as to causes, and necessarily as to the condition of the muscles, ligaments, and bones. In no case of congenital deformity without malformation have I witnessed any irregular or spasmodic action of the muscles. Cases have presented themselves in children born at seven or eight months, with spasmodic contraction of the muscles, which the parents have stated to have occurred at birth; but upon cross-questioning and making minute inquiries, it has transpired that the condition was noticed at three months old, for example, or when the child first began to walk. Out of the great mass of patients at this charity, between seventeen and eighteen thousand of which have passed directly under my own observation, many at the age of seven and fourteen days, I have not seen one infant with irregular or spasmodic action of the muscles. There are instances of cerebral irritation or disease occurring *in utero* which might unquestionably act as exciting causes and produce this condition, yet in every congenital deformity which has come under my observation the muscles have been perfectly under the control of the will, so far as the contraction would allow, even in those few cases where spina bifida has co-existed. While, therefore, I am not prepared absolutely to deny, neither can I admit this to be a congenital condition. We have had patients upwards of fifty years of age admitted into the Hospital with congenital talipes varus, in whom the adductors, which were contracted, and the abductors, which had been constantly kept upon the stretch nearly if not quite to their full extent, yet each retained their functions, and acted under the influence of the will. Muscles so circumstanced, however, of course suffer from diminished development, according to the age of the patients. This is a most important fact, both as regards our diagnosis and our prognosis.

A man, aged 25 years, some time since an in-patient, was afflicted with congenital contraction of both knees, as well as contraction of both gastrocnemii muscles. The latter, I ascertained upon inquiry, was not noticed until some few years after, and that latterly it had considerably increased. I therefore attributed the contraction of the heels to the patient's inability to place his feet flatly upon the ground when swinging himself between two crutches—his only mode of locomotion. By keeping his feet constantly extended during exercise, to enable him to touch the ground with his toes, the gastrocnemii muscles had become gradually and permanently contracted. This patient could voluntarily and with perfect regularity flex and extend his legs up to the point at which they were contracted, *i. e.*, nearly at right angles. The limbs had, by this partial extent of motion, not suffered so much from atrophy as is commonly the case. I divided the tendons of the semi-membranosus and biceps flexor femoris of each knee; and, as soon as the full amount of extension was obtained, which occupied six weeks only, I divided the tendo Achillis in each leg. At the end of three months this man could stand, and with the aid of two sticks he could walk. Here, then, as in every instance of congenital contractions that I have yet met with, there were no functional derangement of the muscles, no displacement of the articulation, nor any obstructions in the joints; the patient was therefore perfectly cured.

The only conclusion at which I can arrive, and which is at all satisfactory to my mind is, that congenital deformities (malformation excluded) owe their origin to mechanical causes, viz., position *in utero*. If this be not so—if they arise from functional or organic disease of the brain or spinal marrow during uterine existence, how is it that we have no evidence of diseased action after birth, as we know other diseases which originate *in utero* develope themselves and exist after birth—the syphilitic as an illustration?

The question might be asked—Do we find analogous instances among the non-congenital deformities? To this I would positively answer, Yes, and in most of the non-congenital deformities. For instance, in patients who have been confined for any length of time, from fracture or other injury, the joints being kept completely at rest, contraction of the limb in the position in which it has been thus kept is commonly the result, without any irregular muscular action or interference with the efforts of the will up to the point at which the contraction has taken place,—precisely the condition met with in congenital contractions; and no evidence whatever can be discovered of muscles being in any way influenced, beyond their being contracted. The same perfect voluntary control exists, and in many instances a perfect cure can be effected in these cases.

Some years since, I was consulted by a gentleman, twenty-two years of age, who had suffered from inflammation of the knee-joint, and subsequent contraction in the flexed position. By the application of a splint, the leg had been gradually extended, and, under the advice of his medical attendant, had been kept in the straight position for two years, when he applied to me. The rectus was rigidly tense, and no perceptible motion could be discovered; but upon using great force, pain was occasioned on the anterior surface of the knee. I applied a splint with a screw attached behind, and, without operation, gradually flexed the leg to a right angle. I then directed the patient to flex and extend the limb alternately with the assistance of the instrument, and in the course of a few weeks he could voluntarily do so about halfway to a right angle. Here, therefore, was an instance, where contraction of the flexor muscles had first taken place, upon removal of which contraction of the extensors ensued. By the above treatment, the motion of the joint and voluntary power were restored, which could not have been the case had any disease of the nerves or muscles existed.

Now let us for the moment admit the supposition that congenital contraction owes its origin to some affection or temporary exciting cause in the brain or spinal marrow. Can we bring analogous cases among the non-congenital? I know of none. In the active spasmodic affections, of which we have numerous examples, the cause or effect remains, and does not yield to treatment, except in a limited degree. In cases of paralysis of one or more muscles, the paralysis, if complete, continues, and sets at defiance all our efforts, unless active treatment immediately follows the attack; so that in no way can I attribute these deformities to irregular muscular action. Of course, a difference of opinion will be and is entertained upon this, as well as upon all subjects that admit of doubt. We can only, therefore, exercise that very necessary but much neglected qualification, common sense. As it regards the condition of the muscles, I am of opinion that no structural or other change takes place any more than in non-congenital deformities, which owe their origin to position. Experience teaches us that a muscle or set of muscles may become contracted from causes hereafter to be mentioned, without any evidence or trace of a change of structure or organic alteration of the muscles themselves. I have had many opportunities of examining the muscles after death of patients whose tendons had been divided during life; and in none could I trace the slightest difference between these and the muscles which had not been contracted. I would here remark that the union of the tendons which had been divided some few months was most perfect,—a linear cicatrix being alone visible. This is most satisfactory, as serving to show that division of the tendon does not destroy its integrity, excepting during the time immediately following the operation, *provided the necessary precau-*

tions are taken, viz., keeping the parts perfectly at rest, and as far as is possible placing the divided ends of the tendon in juxtaposition. In slight cases proceeding slowly and cautiously with the after treatment, or the power of contraction, which is common to all cicatrices, from whatever cause they may originate, becomes destroyed, and a worse deformity is produced. This was the principle laid down by Delpech, the author of this operation, based as it now is upon scientific principles; and it is a principle which can in no case be departed from without incurring great risk.

Many years since, I was called in consultation upon a case which presented the appearance of talipes calcaneus. The os calcis was very nearly perpendicular; the foot flexed, everted, and contracted in that position. At that time I had not witnessed this condition but from one cause—viz., paralysis of the gastrocnemius. Upon examining this patient, I took occasion to point out to the medical gentlemen in attendance the nature of the deformity and the probable cause, directing them to examine the tendo Achillis, and satisfy themselves of the condition of the muscle, the outline of which is absent in these cases, the tendon lying loose and atrophied behind the joint. I had scarcely finished my remarks, when, to my surprise, the mother exclaimed, "Oh, sir, this has been made by a gentleman who operated upon my child two years ago." I learned that the child had suffered from slight contraction of the heel, for which the tendo Achillis had been divided, and the foot rapidly brought into the flexed position. By this proceeding, the uniting medium had been so weakened and attenuated by too rapid extension, that the power of contraction of the cicatrix, to which I have alluded, was altogether lost; and although the muscle was not paralysed, yet, from its greatly increased length, there was nothing upon which it could act before complete contraction upon itself had taken place.

The os calcis, by losing its support, was drawn down into the position mentioned by the muscles of the sole of the foot, and a deformity much worse than that for which the child was operated upon produced, with this disadvantage, that its present state cannot be remedied, beyond restoring the os calcis to the horizontal position; and, in all probability, the patient will be compelled to wear mechanical supports for life. Let this, therefore, be a caution to you; for I have since seen many similar cases.

I may here allude to some amusing experiments which have been made upon rabbits, with the view of illustrating the mode of union of tendons after operation. They require notice, from the fact that diagrams of the results have been published in the *Pathological* and *Medico-Chirurgical Transactions*. The rabbits, unfortunately, would not tolerate the confinement of the limb in splint and bandage after operation, but gnawed off these unwelcome appliances. Of necessity, the union was most imperfect, and no more illustrates the actual union of tendons where proper precautions are used, than the false union of bone after fracture under similar circumstances would illustrate the normal union of fractured bones.

The ligaments suffer from stretching on the convexity, and contraction on the concavity of a deformity. This also applies to those non-congenital deformities which have arisen without any affection of the joint itself. In rheumatic and some other diseases, they appear to become destroyed, and admit of dislocation taking place, as is witnessed in rheumatic disorganising of joints. They appear, however, to be merely passive agents.

The bones are not affected in their growth or development in early life, excepting the congenital rachitic condition. They become slightly altered in the articular surfaces, however, if the deformity is allowed to continue for a period of years, still retaining their natural forms. Hence, as you will more clearly perceive in the course of the lectures, the congenital deformities, contrary to what we should, *à priori*, have anticipated, are by far the most favourable for treatment, and the most satisfactory in their results.

[*To be continued.*]

THE HUNTER STATUE. At a last meeting of the John Hunter Statue Committee at the Royal College of Surgeons, on the 6th instant, it was decided that the execution of the marble statue should be entrusted to Mr. Henry Weekes, A.R.A.; and that when completed, it should be placed in the museum of the College. It is the intention of the Committee that Sir J. Reynolds' portrait of the great original should be followed as nearly as practicable by the sculptor.

Lettsomian Lectures

ON

THE OPHTHALMOSCOPE AND ITS APPLICATION.

DELIVERED BEFORE THE MEDICAL SOCIETY OF LONDON.

By HAYNES WALTON, Esq., F.R.C.S., Surgeon to St. Mary's, and to the London Ophthalmic Hospitals, etc.

LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—It will be doubtless satisfactory to you, and, I assure you, no less so to myself, to say why I appear in this responsible position, because I feel that the Society has a right, under ordinary circumstances, to expect from those who take the lectureship something more valuable and more acceptable than I fear I have to offer. Nor is this a mere vanity excuse, a kind of clap-trap to increase expected applause, but what I really feel.

The facts are these: most unexpectedly, and wholly without my knowledge or seeking, directly or indirectly, I was nominated to the office. My first impression was respectfully to decline, for my time is tolerably well occupied by my ordinary occupations, and I have had of late extraordinary demands on it. But recognising the duty which each individual member of a society owes to the body corporate, I resolved to contribute my quotum.

I could not readily decide on the subject that I should take; but ultimately determined to introduce the ophthalmoscope, on account of its novelty, its value, and, as I believe, the growing disposition on the part of the profession to be informed on this secret penetrating instrument. I hardly ever speak to a professional brother on an ophthalmic subject, without his asking me something about this new appliance, and requesting an opportunity to see it used.

I think that I shall best satisfy the great majority of my hearers by avoiding minute disquisition and deep detail, and rather giving a general idea of the ophthalmoscope, a sketchy outline, shewing what it is, what it can accomplish in the mystery of diagnosis, what guidance it affords for the treatment of disease, and generally introducing any practical matter with which I am acquainted.

Let me say a few words about the origin of the instrument. It seems to be generally agreed, and I believe truly, that the source of this discovery, which has revolutionised ophthalmic nosology, and rendered obsolete nearly everything that has been written or taught on the deep seated diseases of the eye, is to be traced in a communication in the twenty-ninth volume of the *Medico-Chirurgical Transactions*, by William Cumming, Esq., formerly house-surgeon to the London Hospital, "On a Luminous Appearance of the Human Eye and its Application to the Detection of Disease of the Retina and Posterior Part of the Eye."

It would appear that Mr. Cumming's attention was attracted to the subject from the description of cat's-eye amaurosis by several authors; the name being used to infer that the appearance was like the luminous glare of the eyes of some animals, by the reflection of the light from a brilliant tapetum. What was seen, they thought to be the appearance of disease; and Mr. Cumming started with his investigations under that supposition. None of the writers, he says, mention a reflection from the posterior part of the perfectly formed healthy eye of the human subject, nor had he heard of any one else who described such a condition; and he undertakes to show that the healthy human eye is equally, or nearly equally, luminous as the eye of the cat, or dog, or other animals, when observed under favourable circumstances.

It was not long before he discovered that the cat's-eye amaurosis, about which he found the statement of writers to be at variance on all points, was a matter of imagination. With our superior knowledge, we may justly infer that the mass of recorded cases of amaurosis were not diseases of the nervous apparatus of the eye.

The first case in which Mr. Cumming observed the natural brilliant reflection, he supposed to be one of cat's-eye amau-

rosis, so accurately did it coincide with the description given by Mr. Tyrrell. Carrying his observation further, he found that it existed in all healthy eyes when the pupils were dilated.

"Most of the cases," he continues, "appear then to have been nought but the observance of the natural luminosity, and that it should be seen in amaurosis only is nowise strange; the more minute examination bestowed upon cases of this kind, and the probably dilated state of the pupil, are reasons why it should have been seen in it alone."

His simple process of examination is this:—"Let the person under examination sit or stand eight or ten feet from a gas-light, looking a little to the side; standing near the gas-light, we have only to approach as near as possible to the direct line between it and the eye to be viewed, at once to see the reflection. Or, in a dark room, a candle being placed four or five feet from the eye, if we approach the direct line between them, we shall be able at once to see it in many cases. If solar light be admitted through a newly closed shutter into a dark room, the luminosity may be seen when the pupil is tolerably dilated, the patient standing five or six feet from the aperture, and the observer occupying the position before indicated."

"These, then, are the circumstances necessary for seeing the luminosity. That the eye must be at some distance from the source of light, the distance being greater in proportion to the intensity; that the rays of light diffused around the patient (and sometimes around the eye itself) should be excluded; that the observer should occupy a position as near as possible to the direct line between the source of light and the eye examined: hence it is sometimes necessary for the observer to stand obliquely, that his eye may approach nearer to the direct line."

"The appearance of the reflection itself not only varies much in colour and intensity in different persons, but also from the circumstances under which it is seen; viz., the greater or less intensity of light, the position of the eye examined, and the distance at which it is viewed." Many other similar modes are given.

Three times I have seen the eye accidentally illuminated. The first time that I was called to a consultation in the country (an occurrence which a man is not likely to forget), I saw a beautiful illumination of the eyes of a gentleman who was sitting in the corner of the waiting-room of the old station of the Great Western Railway, a few feet behind a gas-lamp; and associated with it was this coincidence, that the gentleman, himself blind, who came to town with his servant to take me to one of his pupils, who had been wounded in his eye, was at the time telling me of his own blindness, and called it "cat's-eye amaurosis". After that, I witnessed the same thing in a lad, behind the gas-light, in a druggist's shop. I again saw it in my study by my microscope lamp.

Mr. Cumming's paper, with all its experiments and suggestions, and not less its originality and philosophy, bases all the application of the discovery in the mere illumination of the interior of the eye-ball; full illumination being taken as the indication of health, and the absence of it as indication of disease in the retina and posterior part of the eye; for instance, he writes:—

"The establishment of the fact of a similar reflection from the healthy human eye to that from the eyes of animals, appears to me chiefly important in its adaptation as a mode of examining the posterior part of the eye. The retina and choroid, hitherto concealed in the living eye, and little opportunity being afforded of examining their condition after life, in consequence of their diseases not terminating fatally, considerable uncertainty has attended the diseases ascribed to these structures; but the existence of this luminosity having been recognised, its non-existence or abnormal appearance may enable us to detect changes in these structures heretofore unknown, or satisfactorily to see those which we only suspected."

"If we dilate the pupil by atropine, we have a means afforded of seeing the condition of the retina and choroid in every case. The cases I have examined in this way have confirmed the general impression that the retina is not frequently the seat of change in amaurosis; for, out of several cases of amaurosis, in which the non-opacity of the cornea, lens, and humours, allowed this mode of examination, I found but two, in which the retina was so changed that the reflection was not seen."

Among the physiological conditions of the eye enunciated by Mr. Cumming, are these: that the choroid is the principal reflecting structure, the light returned from the retina and concavity of the hyaloid body doubtlessly increasing the effect; that the brilliancy is considerably augmented from the concentrating influence of the concave shape of the retina, and the focal distance of the lens; that the luminosity of the healthy eye appears to be in proportion to the light colour of the pigment. The reflection from the albino is evident in ordinary day light. He further observes:—

"On placing a middle aged man, an albino, ten or twelve feet from a gas-light, the reflection was extremely vivid, and of a pinker colour than ordinary, while the light transmitted through the choroid and iris evidently increased the effect. On placing close to his eye a black card with an aperture a little larger than the pupil, the reflection was brighter than that from the eye of a fair person examined side by side, but was of a more decided pink colour.

"In persons of fair complexion and blue or grey irides, it is generally more brilliant and more readily seen than in those of dark skin and irides. In the mulatto, it is also dusky; but in them, as in persons of swarthy complexion, a silvery reflection is sometimes seen, and is most probably a reflection from the retina. In the albino, this reflection produced by the vascular choroid is most brilliant and lightest in tint. In proportion to the darkness of the pigment, its lustre is diminished and the colour becomes more dusky."

Perhaps there appears a contradiction here, but there is really no discrepancy. The choroid is found to reflect greatest where the pigment is wanting. The pigment has nothing to do with the reflection: on the contrary, it interferes with it, and therefore lessens the illuminating power. In man, the pigment is less abundant and less intense in colour than in many of the lower animals; it is brown, rather than black.

It was then the first grand principle, the comprehensive idea, that Mr. Cumming gave us. He did not see the optic disc, nor the retinal vessels. The perfecting of the discovery and the practical application, involving as they did the difficulty of inventing an instrument and the working out of much detail, were reserved for other labourers. These were found in Germany. It would be fruitless to trace the instrument through its stages of development. I will merely give the names of its several improvers, as far as I can ascertain, in the order of time: they are, Helmholtz, Ruete, Coccius, and Anagnostakis.

All who are acquainted with the current medical literature, know that the ophthalmoscope was received in England with much acclamation, certainly not more than was deserved. But, even when there is not exaggeration about the value of any discovery, or the benefit of any appliance, false expectations are apt to be found, not less of its intrinsic value than its adaptation; reaction ensues, and condemnation soon follows. But this is, of course, with the multitude, and not with the plodding few. When the profession was truthfully told that the Germans had devised a method of looking into the eye, whereby the minute parts could be intelligibly seen, and diseased states fully recognised, it was but natural, and certainly commendable, that many should embrace such desirable means, and possess themselves of the new wonder. It was therefore without astonishment that I learned from one surgical instrument maker that he had sold bushels of ophthalmoscopes, and from several opticians that they could not make them fast enough for sale. Hundreds of foreign instruments were imported. But dissatisfaction and disappointment quickly followed. It was early discovered that there was no more royal road here than in any branch of knowledge; that elements had to be mastered, mechanical niceties to be acquired; that considerable practice was demanded for the requisite familiarity; much study wherewith to detect, to understand, to compare, the several diseased states; and abundant opportunities, with time to work out a rational mode of treatment.

The ophthalmoscope at present in use is a portable little concave mirror, made of silvered glass, having a hole of sufficient dimensions in the centre, with a handle of about ten inches. The hole is usually too small; it should be of sufficient size to admit of distinct vision when the instrument is held with the requisite obliquity; the edges should be smooth and free from splinters. A double convex lens, of from two and a half to three inches focus, is needed as an appendage; but the power should be regulated by the usual range of the observer. It should be set in a frame with a stem of three or four inches long, which renders it more readily used. I know that mirrors of different curve and lenses of varying power compose the apparatus of some surgeons. That these varieties can be brought into requisition according to one's fancy, is undoubted; but I believe that they possess no utility, no decided practical advantage.

The ophthalmoscope demands an artificial light. Under an emergency, I have employed a candle, and with the faint illu-

mination have gathered some, although an imperfect, idea of the interior of the eye. A steady lamp-flame is needed for the full effect. Whenever I can command it, I employ gas, and use a small argand burner, at the bottom of which is an arrangement with glass collar that ensures a steady flame, that slides on a vertical rod with a pedestal. It is a gas-lamp much used by the artizans of the watchmaking district of Clerkenwell, and sold at a lamp-shop in Clerkenwell Green. A very light blue chimney whitens the light by reducing the predominant red rays, and the eye is then more naturally seen.

The examination should be made in a dark room.

As a rule, the eye should be prepared by having the pupil dilated by belladonna or some of its salts. Now and then persons are met with, especially fair young persons, whose naturally expanded pupils enable us to dispense with the artificial enlargement, particularly if it be not more than a mere glance within the eye that is needed; and above all, near-sighted eyes may be so examined; but generally, in adult age, and still more in old age with its discoloured lens, and in all cases where a thorough survey is called for, the natural pupil will not suffice. Vain discussions have been wasted on this question, which may be resolved into this common sense remark, that if the desired object can be accomplished without interfering with the pupil, all the better, as the sequel will show; if it cannot, dilatation must be resorted to.

The pupil is generally more contracted by the light of day, than by the light of the opthalmoscope. Often when it has appeared too small to allow of any serviceable examination, it has dilated sufficiently when the room has been darkened, and remained of such capacity as to afford all that was desired.

Unnecessary dilatation should always be avoided, because this unnatural state produces positive discomfort from indistinct vision, the degree and duration of which, from days to weeks, is proportionate to the dilatation and the healthiness of the eye. Patients frequently leave the surgeon on account of this, even when they have been forewarned. In spite of all assurance to the contrary, they are likely to attribute the temporary annoyance to the use of the ophthalmoscope, and to declare how detrimental it has been to them. Any increase of disease is often set down to the same cause.

It is not generally known, indeed it is my own observation, that, when a strong solution of atropine is used to the one eye, the vision of the other is apt to be impaired for one, two, three, or even more days, and that without any apparent alteration in the pupil. The power of adjustment seems to suffer particularly. I shall not stop to discuss the physiology of this; I think it sufficient to mention the fact.

These are reasons why strong solutions should be avoided; and weak ones answer our purpose quite well. I have seen symptoms from the strong applications that leave me in no doubt that they were those of belladonna poisoning. In one instance I believe that death was so caused. The physician who was called to the young man mentioned his suspicions of such, without knowing that the drug had been used. A six-ounce bottle of lotion, containing thirty-six grains of the sulphate of atropine, was ordered as an eye-lotion, with directions for the wash to be constantly applied to the eye. These were fully carried out. The eye was kept saturated with wetted lint; several bottles were so used. What a large quantity must have passed into the throat through the lacrymal conduits!

Under very exceptional circumstances only therefore, and which the sagacity of the surgeon must determine, should a strong solution be used, and then only in small quantities. Half a grain of the sulphate to an ounce of water is what I ordinarily employ. A single drop, put on the conjunctiva, suffices. I depress the lower eyelid, and with a brush, my finger, or any convenient thing, apply the drop. Dilatation is much slower, but it passes away quickly, and the disagreebles incidental to the stronger form do not appear. Dr. Garrod has shown by his experiments that dilatation may be obtained by a grain in several ounces of water, but it must be remembered that healthy eyes are easier influenced than diseased ones.

It has been asserted that the retina is likely to become congested by the atropine. I have not been able to confirm this statement; and it is difficult to reconcile such a statement with the observation of my colleague, Mr. Taylor, that the eye is more tolerant to the ophthalmoscopic examination when atropine is used, than otherwise.

[To be continued.]

Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

SOUTH LONDON OPHTHALMIC HOSPITAL.

ACUTE SCLEROTITIS AND IRITIS (?) OF FIVE WEEKS STANDING: MORPHIA TREATMENT: CURE WITHIN A WEEK.

Under the care of J. Z. LAURENCE, Esq.

ELIZABETH R., aged 26, was admitted to the South London Ophthalmic Hospital on January 25th, 1860, for double acute sclerotitis of five weeks duration. She had been previously under treatment at one of the metropolitan hospitals for pains in the head and eyes, and had been blistered on the temples, and had taken pills (mercurial?) three times a day for a fortnight. These measures relieved her head, but had no effect on her eyes. When she applied at the Ophthalmic Hospital, both eyes presented great vascularity, chiefly of a sclerotic character; excessive lacrymation; diminished transparency of the corneæ; and some dilatation and perfect fixity of the pupils. These objective symptoms were accompanied by pain in the eyeballs, temples, brows, and cheek-bones, so intense as to entirely deprive the patient of sleep. Her vision was very much impaired; objects in the street appeared "misty" to her (seemed to her merely as "shadows"); and she was incapable of distinguishing colours.

January 25th. A third of a grain of hydrochlorate of morphia was ordered to be taken every three hours; the intervals of the doses to be increased as the pain abated. Warm fomentations (which she had previous to her application at the hospital been using with some benefit) were ordered to be applied to the eyes.

Jan. 28th. The vascularity, especially of the left eye, was greatly diminished. She had hardly any pain in the eyes.

Feb. 1st. The patient not having made her appearance at the hospital, she was found, on inquiry, to have so completely recovered as to have resumed her work.

REMARKS. The above case is an excellent illustration of the "morphia treatment" of the deep seated inflammations of the eye. The long previous duration and the rapid subsequent cure prove, as conclusively as can be the case in a science of the inexact nature of surgery, that the cure was really the result of the administration of the morphia. Mr. Laurence has now employed this simple plan of treatment (the first published case of which will be found in this JOURNAL for July 9th, 1859, and a paper on the same subject in the *Medical Times and Gazette* of the same year) in about twenty cases of sclerotitis and iritis; in about one-half, the cases have been cured; in about one-quarter, the results have been less satisfactory; while, in the remaining quarter, the treatment has proved useless. The unsuccessful cases have been generally either of a traumatic nature, or complicated with ulceration of the cornea: this latter continued local source of irritation appears to be peculiarly unfavourable to the influence of the morphia treatment. This is, most will admit, preferable to loss of blood, blistering, and mercurialisation; and, in this sense, is in all cases worthy of a fair trial in the first instance—in some, as in the present one, proving efficient, after the ordinary means of cure have failed.

We may state, that sometimes Mr. Laurence has found the administration of morphia followed by a good deal of sickness and depression. The doses given varied from a quarter to half a grain, repeated every third, fourth, or fifth hour, according to the influence on the pain. The questions of dose, of what class of cases is suitable, what unsuitable, to the proposed plan of treatment, and numerous minor details, can only be settled by extensive and accurate observations; and we hence hope to see Mr. Laurence's treatment tested by other surgeons, who will by the publication of their results tend to define the limits of utility of a remedy which certainly, in some cases, appears to exercise a very remarkable curative power over an often formidable and mostly obstinate series of ophthalmiæ.

LIVERPOOL NORTHERN HOSPITAL.

CASES OF ACUTE DISEASE OF THE CHEST.

Under the care of A. T. H. Waters, M.R.C.P., Physician to the Hospital.

[*From Notes by* Mr. Jackson, *Clinical Clerk.*]

[*Continued from page* 432.]

Case iv. *Pneumonia of the Right Lung: Pleurisy of the Left Side: Pericarditis with Purulent Effusion: Death: Autopsy.* James Smith, aged 35, seaman, of fair muscular development and moderately stout, was admitted into the Hospital, March 26th, 1860. Five days before admission, he began to feel unwell, but continued his work up to the 24th. He had had pain in the right side and in the lower limbs. Had been hoarse for about two days. Had had no rigors; and had slept badly.

On admission, he complained of a troublesome irritating cough, with pain in the right side. He was very hoarse. Pulse 100, moderately full; the skin was rather hot, but not pungently so; tongue foul; the expectoration was frothy. There was crepitation over the back of the right lung, with bronchophony and bronchial breathing; there was dulness on percussion as high as the spine of the scapula, and in the right axilla; increased vocal resonance on the right side, with deficient movement of the thoracic walls. On the left side the resonance on percusson and breath-sounds were normal.

He was ordered an eighth of a grain of antimony, with camphor mixture, every three hours; turpentine fomentation to the chest; and low diet.

March 28th. He had slept a little, and felt easier and free from pain. The pulse was 100; the skin rather hot; the sputa were scanty, adhesive, but not rust-coloured. There was loud tubular breathing and bronchophony opposite the lower part of the scapula; otherwise the auscultatory sounds were the same as before.

March 29th. The pulse was 100; the skin moist; the tongue cleaner; the sputa very adhesive. Crepitation was heard over the whole of the back of the right lung, with loud bronchial breathing at the upper part. Percussion was dull. A large blister was ordered to be applied to the back of the right lung; and the antimony to be taken in effervescing saline mixtures. He was ordered to have beef-tea.

March 31st. The pulse was 76; the tongue clean; the skin moist, cool, and free from perspiration; the sputa frothy and not discoloured; he had slept well. Crepitation at the back of the lung was less fine than before. He was ordered to omit the antimony, and to take the effervescing mixtures with ipecacuanha wine; and to have a mutton-chop for dinner.

April 3rd. He had slept well, and complained of no pain. The pulse was 90, small and weak. There was less dulness at the back of the lung; opposite the scapula there was returning crepitation, elsewhere the crepitation was coarser. He was ordered carbonate of ammonia, with tincture of squills and sulphuric ether. He progressed favourably up to the 5th, when he complained of pain in the left side, and there was a return of fever. The pulse was feeble and irregular. There was pain on pressure in the epigastrium. Examination of the chest showed a fresh accession of inflammation of the right lung, and a double friction-sound was distinctly heard in the præcordial region towards the base of the heart, with pleural friction-sounds on the left side. A blister and a saline mixture were ordered; and beef-tea and low diet were substituted for the chop.

April 6th. The pulse was quick and irregular; there was no pain. The pericardial friction-sound was about the same, the pleural more extensive. He was ordered two grains of calomel and one of opium three times a day.

April 7th. The pulse was 110, and irregular; there was slightly increased præcordial dulness. Friction-sound was heard when pressure was made over the centre of the præcordial region, not otherwise. The heart-sounds were faint; no endocardial murmur was heard. He was ordered to take the pills every six hours, and to have a blister applied over the heart the next day.

April 10th. The pulse was 110, and regular. No pericardial friction-sound could be heard.

April 12th. The pulse was 112, regular, but weak. The heart-sounds were faint, but free from murmur. Friction-sounds were heard over the lower part of the left pleura. The lung symptoms had somewhat improved since the last report. The gums were sore. There was no increased dulness upwards of the præcordial region, but there was distinct bulging and dulness in the epigastrium. The pills were omitted, and a saline with carbonate of ammonia, and wine, were ordered, with milk, etc.

April 14th. He had not slept; there was much anxiety of countenance. Pulse 128, feeble and irregular. The tumour in the epigastrium was very distinct. There was no pericardial friction, nor endocardial murmur. There was less dulness at the back of the right lung. He was ordered an increased quantity of wine.

He died on April 15th.

Autopsy. There was about a pint of straw-coloured fluid in the left pleural cavity. There was no effusion on the left side, but some old adhesions existed. The left lung was crepitant throughout, and healthy, except that it was somewhat emphysematous along the margins and at the apex. The pleural surface laterally and behind was covered with a thin layer of recent lymph. The right lung was consolidated, but not firmly, at the lower part of its posterior lobe. The upper part was much engorged. Anteriorly the lung was crepitant. No tubercles existed. The lateral and posterior surfaces of the lung were covered with a thick layer of old lymph. The pericardium contained a very considerable quantity of purulent fluid. The heart was contracted and pushed upwards. The reflected pericardium was much thickened with layers of unorganised lymph; the adherent pericardium was covered with a thick layer of the same material, which assumed in parts the form of little pendulous growths from the surface of the heart. In some places, adhesions, thick, but easily broken down, existed between the two layers of the pericardium. The greatest deposit of lymph had taken place near the base of the heart, and in some spots it was more than half an inch in thickness. The fluid in the pericardium had pressed down the diaphragm and produced the bulging in the epigastrium noticed before death. The muscular substance of the heart was healthy; the valves and endocardium were quite free from disease; atheromatous deposit existed in the aorta.

Remarks. The above case presents a well marked instance of acute pericarditis, uncomplicated with rheumatism, not spreading to the muscular substance of the heart, nor involving the endocardium, but running very rapidly through its stages, and terminating in the effusion of pus.

The following, drawn up from notes of private cases, is added, as bearing on the series.

Case v. *Pneumonia: Local Blood-letting: Administration of Antimony and Mercury: Recovery.* On May 14th, ——, Mr. —— complained of pain in the course of the left saphena vein, which was somewhat varicose. There was some congestion about the vessels of the leg, which was relieved by a few days rest. Mr. —— was engaged in business, had enjoyed very good health for some years past, but had once been laid up with severe inflammation of the lungs, for which he had been freely bled, he said, with most decided benefit. He was middle-aged, strong, moderately stout; in fact, in good general condition.

Having been attended for the leg affection, he was seen on the morning of May 18th, when the local affection had nearly subsided, but he complained of slight pain in the back.

In the afternoon of the 18th, he was seized with violent pain in the left side, and dyspnœa. The pulse was 90, and full; there was but little fever; he had had no rigors. There was fine crepitation at the base of the left lung. He was ordered to be cupped to twelve ounces, and to take one-sixth of a grain of antimony with a saline every hour. In the evening, the pain was more diffused, but less acute. Pulse 108, very full and strong. He was ordered to take half a grain of antimony every hour.

May 19th. He had passed a bad night. The pain and pulse were about the same. Respirations 32. The face was flushed; the skin hot; he had no expectoration. The crepitation was more extensive at the back of the left lung, and there was slight dulness. The right lung was quite free. In the morning he was cupped to ten ounces, and ordered a grain of antimony every hour. In the evening he was very much relieved. The pulse was softer, and the pain less; the latter still rather severe at the extreme base of the left lung. Fifteen leeches were applied; and he was ordered to take two grains of calomel and one-sixth of a grain of opium every four hours.

May 20th. Pulse 104, softer. He had scarcely any pain left. There was no extension of the inflammation. At night, a blister was applied to the left side. The antimony was directed to be taken every three hours.

May 21st. Pulse 92. He had expectorated rust-coloured sputum. Vomiting was for the first time produced by the mixture. It was omitted, but the pill was continued.

May 23rd. The pulse was 96, soft and regular. He complained of but little pain. There was some dulness and bronchophony at the lower part of the left lung. A large blister was ordered. The pills to be taken twice a day.

He steadily improved from day to day. The pills were stopped on the 25th, only a slight effect having been produced on the gums. He was ordered effervescing saline, with ipecacuanha and squills.

May 27th. No crepitation could be heard, but slight dulness remained. Pulse 80.

June 2nd. He had quite recovered from his chest-symptoms.

During the treatment the diet was regulated very much according to the feelings of the patient. In the early part of the disease there was no appetite for food; but as the symptoms began to subside, beef-tea, nutritious broths, and any food that could be taken, was allowed. After the subsidence of the pneumonia, he had a return of pain in the leg and slight inflammation of the saphena vein, which remained thickened for some time, and prevented him walking well. By the beginning of July, almost all symptoms had disappeared; but on the 9th, he went to some races, walked about a good deal, drank rather freely, and next day was seized with severe inflammation of the saphena vein, with an erysipelatous blush all over the leg. Rest and fomentations relieved the urgent symptoms, but left a thickening in the course of the vein. This was removed by rubbing in mercurial ointment, and regulation of diet. He soon afterwards went to the sea-side. When he returned, no appearance of any thickening of the vein existed. His health has continued very good ever since.

[*To be continued.*]

Original Communications.

A FEW MINOR QUERIES IN MEDICAL SCIENCE.

By W. HINDS, M.D., Lecturer on Botanical Science at the Birmingham Midland Institute.

I.—NARCOTICS IN INCIPIENT INSANITY.

THE editor of the BRITISH MEDICAL JOURNAL, in his relation with contributors, began his career with a most wise and practically useful postulate. He announced, week after week, that "brevity was the soul of medical writing, even more than of wit", until it was fully evident that many amongst his staff of contributors looked upon that aphorism as an admirable bit of irony. With a view to the practical resuscitation of that maxim, which I shall assume to have been intended in its literal sense, I shall endeavour to contribute a short paper now and then on some subject of more or less interest to every medical man. If these papers be not read, or of sufficient interest to be read by many, I shall at least endeavour to compress whatever I may be able to give into the smallest possible space.

My first query is—To what extent can we entirely suppress incipient insanity by a very early and free use of opium?

Now, my theory is that much may be done in this direction. The fact is more or less acknowledged, especially by those whose express functions are employed in the treatment of insanity; but it is not, I think, so thoroughly recognised by the profession in general as it should be. Cases of incipient insanity do really belong, and ought to be considered to belong, to the professsion in general. It is the profession in general who first meet with them, and it is they to whom the very earliest treatment should be considered to belong. It is to be feared that many practitioners feel so much anxiety to get these cases into an asylum, the place especially devoted to such cases, that they let slip sometimes an opportunity which can never be compensated for. The anxiety for such a removal is highly commendable and important; but it so happens that often, in spite of it, delays will occur, either through the wavering resolves of the patient's friends, or from other causes. The hours that thus pass are often golden hours in relation to the welfare of the patient, and they are often lost for ever.

To those who may coincide with this view, the following cases will be read with interest, as illustrating the principle laid down:—

CASE I. William N., aged 22, a steel-roller, getting a salary of about five pounds weekly as a manager, and not always temperate in his habits or regular in his hours, became insane about two years ago, and was taken to an asylum, where he was confined for sixteen weeks. From that period, he remained well until a month ago, when, after smoking much and losing his rest, he became talkative and rambling. He did not sleep well at night, and was either talking unconnectedly, or else jumping and capering about the room. He was very mischievous if left a few moments, and would open the window and throw out his shirt and any other things at hand. At length he became nearly unmanageable.

I saw him on August 21, 1858, after he had been really ill about a week. *When first seen*, he was very chattering, merry and complaisant, rambling and unconnected in his conversation, but extremely compliant to any direction. His tongue was furred, and his appetite bad; no tremors were present. He did not sleep at night, and, after dozing off a little, would wake, and begin to talk, mixing all sorts of matters up into a confused medley.

Four grains of powdered opium were ordered to be taken immediately, and a mixture of compound spirit of ammonia and tincture of hyoscyamus in frequent doses.

Aug. 22nd. He had not slept, and was getting worse. Three quarters of a grain of morphia were ordered to be taken immediately, and repeated at bedtime.

Aug. 23rd. He had had not more than an hour's sleep, and was very wild. His bowels were confined. An aperient of sulphate of magnesia and rhubarb was directed to be taken immediately; and, after the bowels should have been opened, three grains of morphia in two pills, with an interval of six hours.

Aug. 24th. He had very little sleep during the night, and the symptoms were aggravated. The bowels had freely acted. He was ordered to take six grains of morphia in four pills, with an interval of six hours, and a tonic mixture.

Aug. 25th. He had slept four hours; there was slight improvement. The pills—namely, six grains of morphia, as before, were repeated. The result was that he improved gradually from this date; that on the 27th and 28th he became quite rational, and made anxious inquiries as to his business during the period of his illness, and on September 7th he had fully recovered his health.

In the seven days from the 21st to the 27th of August, he had taken twenty-five grains and a half of hydrochlorate of morphia, four grains of opium, and about one drachm of extract of hyoscyamus, besides a little tincture.

CASE II. Eleazer H., aged 40, of industrious and very temperate habits, was brought to me in the middle of the night of the 14th of September, 1857. His wife came with him, for safety. The moment I got sight of him, he hurriedly pulled off his coat, turned up his shirt-sleeves—at first, somewhat to my consternation—and demanded to be largely bled. His agitation was extreme, and he could not rest a moment. He explained to me that he was not in his right mind, had given way to violent rage, and had had a serious quarrel with his wife.

The history of this case, which I afterwards learned, was as follows:—For several months he was irritable and nervous, and felt his health failing. At last, he began to get suspicious and jealous of his wife, but without the least reason. A night or two before I saw him, after getting a pint or two of beer, he felt much worse, and got into a violent rage. He became agitated and sleepless, and had not slept for many nights. On the day before, he had himself carefully put out of the way some heavy weapons from his room, feeling that he might do violence, even against his own will.

Seeing at once that he was labouring under great exhaustion and excitement of the nervous system, I quieted his feelings, told him that bleeding would do him injury, and gave him four grains of powdered opium and a mixture of ammonia and tincture of hyoscyamus.

Sept. 15th (next day). When I called to see him, I found he had not slept more than half an hour, was greatly agitated, and unable to lie quiet in bed. He was quite incoherent at times. The tongue was coated somewhat, and not at all tremulous; the pulse was slow, and about 78; the bowels were freely open. A grain and a half of morphia and a grain of tartar emetic,

divided into two doses, were prescribed to be taken, with an interval of five or six hours, in addition to the mixture.

Sept. 16th. He had about an hour's sleep altogether. He dozed a little, and started up in a fright. He was slightly more composed. An aperient was given, and the morphia was increased to a grain and a half at each dose, with a grain of tartar emetic twice in the day.

Sept. 17th. He had not much sleep, but was more rational, the lucid intervals being more pronounced. He could now lie quite still. The bowels were well open. He was ordered to take two grains of morphia and three-fourths of a grain of antimony twice in the day.

Sept. 18th. He had four hours sleep. The pills were repeated.

Sept. 20th. The pills procured a *fair night's sleep* on the 18th. Last night he did not sleep so well. The narcotic seemed less active. He was ordered to take half a grain of morphia and five grains of extract of hyoscyamus every night.

From this date he improved rapidly, sat up on the 21st, and on the 26th he went to business as usual. In eight days he took twenty grains of hydrochlorate of morphia and four grains of opium, besides some doses of hyoscyamus. Some time ago, he had had no subsequent attack.

I might give other cases in illustration of the principle; but the results in these two are so striking, evident, and conclusive, that it would not be either necessary or desirable to the object in view.

ON THE GENERATION OF NERVE-FORCE.

By RICHARD HUGHES, M.R.C.S., and L.R.C.P.Ed.(Exam.), Surgeon to the Brighton Orthopædic Hospital.

THERE is a tendency in much of modern science to revive upon sound scientific data the guesses of earlier speculators. The atomic theory in physics and chemistry, the reflex doctrine in nervous physiology, will supply examples of my meaning. It will not then be urged, as an objection to the theory I am about to advance, that it may be found adumbrated in the works of Harvey, Willis, and others.

It is generally admitted that neurine, or nervous matter, performs its peculiar functions in the organism by being the seat of a property which, from its analogy with the so-called "forces" of inorganic nature—light, heat, electricity, etc.—is called the nervous force. Farther, that, unlike the contractile property of muscle, which resides in every fibre as such, the gray or vesicular neurine is the generator, the white or tubular neurine the transmitter of this force. These doctrines are so generally accepted, that I may start with them as assumptions.

The common theory of the mode whereby this nerve-force is thus generated and transmitted in the motor process seems to be as follows:—Upon the accession of a stimulus, from within or from without, on the nervous centre, an evolution of force from the gray matter there takes place, which force is then transmitted through the tubular matter of the nerves to the muscles appropriate to the action desired. I would, on the contrary, propose the following hypothesis:—

That the nervous force is being continuously and uninterruptedly generated or secreted from the blood by the cells of the gray matter, and as constantly transmitted therefrom through the nerves; and that any stimulus—whether this be volitional, emotional or reflex, galvanical or mechanical—produces contraction, not by causing evolution of nerve-force altogether *de novo*, but by increasing the intensity of the generation or transmission already going on.

There are three points in this hypothesis which require proof. (*a*) That the nervous force is generated by the gray matter *from the blood;* (*b*) that its generation is *continuous, not interrupted.* If these be proved, another proposition—(*c*) that motor stimuli act, not by producing nerve-force altogether *de novo*, but by intensifying processes already in transaction, will be manifest without farther argument.

a. 1. In the first place, let us consider one of the main grounds whereon we believe the grey matter to be the generator, the the white matter the transmitter, of nerve-force. It is that the grey matter presents precisely the structure which in every gland of the body is characteristic of its secreting portion, viz., a collection of nucleated cells; while the *tubular* form of the white matter presents a no less perfect analogy to the ducts whereby the secretions are transmitted to their appropriate destinations (Solly, *On the Brain*, p. 1-17). But in every gland there is, besides secreting cells and transmitting tubes, a third constituent, viz., the fluid from which the particular secretion is formed. Is the analogy here to fail? Are the nucleated cells of the nervous system to be regarded as generating their peculiar secretion from nothing, or at best from themselves? Shall we not rather say that the blood—the source of everything else in the body, even of the future progeny*—is to this, as to other glands, the material on which its secernent function works?

2. What are the grounds on which, whatever may be our view of the peculiar function which the spleen plays in the organism, we are at least certain that it has some office to perform in reference to the blood? Simply that there is conveyed to it a far larger quantity of blood than it requires for its nutrition. We argue that it must do something, though we may not know what, with this excess of supply. Now the amount of blood conveyed to the brain is enormously beyond that required for its mere nutrition, being not less than one-fifth of the total amount contained in the body; while the weight of the brain in proportion to that of the body is but one-thirty-fifth. And of this blood by far the greater quantity goes to the grey matter, which nevertheless itself exists in the brain in a smaller proportion than the white matter. When, added to this, we have, what in the spleen we have not, a system of nucleated cells undoubtedly generating nerve-force, and a system of tubular nerves undoubtedly transmitting it to its destination, can we doubt that this force is secreted from the largely-superabundant supply of blood?

3. The state of unconsciousness (syncope) which almost immediately follows on the diminution to any great extent of the supply of blood to the brain, is explicable upon no hypothesis so well as upon that which supposes that from the blood that force is continuously generated which is the mind's instrument, and without which it has no consciousness of anything external to itself. For then any interruption, however temporary, to the supply of blood would be shortly followed by unconsciousness, which could not be the case for a much longer time were the loss of nutrition the only result.

In thus speaking of nerve-force as a secretion from the blood, I am by no means committing myself to any theory as to the mode of its production, or as to its nature as a material though imponderable agent. Its analogue in the inorganic world seems to be electricity; and it is by no means necessary to suppose this a material fluid, although we speak of it as generated (or set free) by chemical decomposition and other changes.

b. My second proposition is that this generation of nerve-force is continuous, not interrupted. In support of this I may adduce the following fact:—If a motor nerve be divided transversely, in a living animal, and the distal portion be galvanically or mechanically irritated, vigorous contractions are produced in the muscles supplied by that nerve. The same result follows on irritation for some time after the section, but in a gradually decreasing intensity, until it altogether ceases to be manifested upon any amount of stimulus. Now this change is not to be explained by supposing any loss of vitality on the part of the distal portion of the nerve; for its supply of blood is in no way cut off by the section, and, upon re-union of the divided ends taking place, its function is completely restored; the only altered circumstance is that its connection with the grey matter of the nervous centres has been interrupted. Its loss of excitability simply from this cause would be perfectly intelligible upon the old hypothesis; but not so the presence of excitability immediately after the section, and its gradual decrease and extinction afterwards. The hypothesis I propose will perfectly explain all the phenomena. Nerve-force is being continually generated in the nervous centres, and transmitted through the nerves, so that the latter are kept constantly charged as it were with it; and an external stimulus applied at any part of their course will excite them to produce muscular contraction. Being constantly charged with nerve-force, a separation from the nervous centre at first induces no change in their excitability; but, their connection with the fountain being cut off, their supply of force is gradually exhausted, till at length they become inert cords of nervous matter, insensible to the strongest stimuli.

The preceding explanation of this phenomenon is confirmed by observing the mode in which this exhaustion of excitability takes place, viz., that it does not affect the whole

* For the testis and the ovary can hardly be regarded in any other light than as two glands, secreting from the blood (of an homologous artery, spermatic or ovarian), the one the sperm-cell (spermatozoon), the other the germ-cell (ovum), whose union constitutes the future progeny.

nerve simultaneously, but the latter dies (as a nerve) from centre to circumference. The distal end will retain its excitability for some time after the proximal portion has ceased to respond to stimuli. This is explained by the fact that the continuous nerve-current *sets*, if we may so express it, peripherally, *i.e.*, from centre to circumference. Consequently, upon section of a nerve, the current of force in its distal end still flowing peripherally, and no fresh supply from the fountain coming to reinforce it from behind, the parts farthest from the circumference are soon left bare by the receding tide, and are therefore the first to lose their excitability to stimuli.

It may be objected to this view of the continuous generation and transmission of nerve-force, that a continuous contraction of the muscles ought to be the result, and that the *rationale* of occasional contractions will become almost impossible. To this I would reply by adducing the very thing required, viz., a constant condition of passive contraction in the muscles. For what else is that which is called their *tone*—a state best understood by contrasting it with the laxity of the muscles of a paralysed limb, and whose result is seen in the deformity (so familiar to those, like myself, engaged in the practice of Orthopædic surgery) produced by muscles whose opponents have lost their counterbalancing power. A beautiful instance of the same thing is the contraction of the pupil from the unbalanced influence of the third nerve after section of the sympathetic in the neck. Here is the best of *rationales*; for the continuous *passive* transmission corresponds to a continuous *passive* contraction, while occasional *active* transmissions upon a stimulus being applied, account (as on the old hypothesis) for occasional active contractions.

Further, we have in the phenomena produced by the galvanic current an analogy to this state of things, which, considering how precisely the electrical force in inorganic is the representative of the nervous force in organic nature, is almost an argument in proof of it, and may at least serve as an answer to objections against it—the true value of analogies. The continued galvanic current, when applied to a nerve, produces no perceptible contraction, save at its first establishment, at any sudden increase in its intensity during its continuance, and at its interruption. The second of these phenomena seems to me to represent the ordinary process of active muscular contraction, the stimulus, whether volitional, emotional, or reflex, on the grey matter causing a sudden increase in the intensity of its evolution of nerve-force from the blood, and thence of its transmission of the same through the nerves to the muscles. The contraction which results from a galvanical or mechanical stimulation of the trunk of a nerve itself is explicable on the similar *rationale* of an increase in the intensity of its transmission of force. The contraction produced at the making and at the breaking of the galvanic circuit, may find corresponding facts respectively in the general convulsion which accompanies the return of suspended animation, and that which is so frequently the precursor of dissolution.

The value of a theory is that of a key, that it shall unlock doors which shut us out from hitherto unexplored chambers of knowledge. And its test is the same,—that it shall accurately fit all the wards of the lock, which here are the facts of the case. The deductive part of the process of discovery I must reserve for a future occasion, contenting myself here with having gathered, by induction from a few carefully selected facts, a theory which seems to bind them well together, and to commend itself to physical and physiological analogy.

CURIOUS MALFORMATION OF THE CHEST. At the meeting of the Medico-Chirurgical Society of Edinburgh on May 2nd, Dr. Alexander Simpson introduced Dr. Wojaczek, who is the subject of a peculiar malformation of the chest. Dr. Wojaczek is aged 23, a native of Oslavau in Moravia. In front, the chest presents in the middle, at the lower part, a depression about three inches deep, large enough to lodge the head of a child. The hollow is formed by the inflexion of the sternum downwards and backwards towards the spinal column, which it apparently approaches to within about an inch and a half. There is no deficiency of bone or cartilage, but the cartilages of the ribs are bent back so as to join the depressed sternum and form the sides of the hollow; the skin and soft parts present nothing unusual. Respiration is carried on almost entirely by the diaphragm and false ribs. The malformation appears to have been congenital, and was first noticed by Professor Skoda and Rokitansky, in attending M. Wojaczek during an illness. Casts of the malformation have been placed in the museums of the University and of the Royal College of Surgeons of Edinburgh. (*Edinburgh Medical Journal*, June 1860.)

Reviews and Notices.

A MANUAL OF OPERATIVE SURGERY ON THE DEAD BODY. By THOMAS SMITH, F.R.C.S., Demonstrator of Anatomy and Operative Surgery at St. Bartholomew's Hospital; Surgeon to the Great Northern Hospital. With illustrations. Pp. 139. London: Longmans. 1859.

OPERATIVE SURGERY, ADAPTED TO THE LIVING AND DEAD SUBJECT. By C. F. MAUNDER, F.R.C.S., Demonstrator of Anatomy in Guy's Hospital, and Junior Surgeon to the Great Northern Hospital. Part I. Pp. 144. London: Churchill. 1860.

THERE come before us on the present occasion two authors, engaged in an honourable contest for favour at the hands of the profession, and especially of those who are preparing their hands for skill in the performance of such surgical duties as shall devolve on them in the course of their practice. But, before looking into the books of Mr. SMITH and Mr. MAUNDER, we would beg permission, as a matter of warning to those who may happen not to know or not to think better, to assure them that not all the books in the world, even if written so plainly that all who run may read, and illustrated in the most excellent style, can properly treat operative surgery. They are valuable aids; but the art must be learned, and the manual dexterity acquired, on the subject itself.

The works before us are both written by gentlemen holding important educational positions in two of our greatest medical institutions; and, as to deciding between their merits as surgeons or as teachers in the anatomical theatre, there is nothing to justify us in entering on the task. With regard to the books before us, however, we only express the opinion we have formed of them in considering which of the two we should prefer as a guide if we were about to take a course of operative surgery.

Mr. Smith's book consists of nine chapters: viz.—I. Introductory; II. Some Operations in Minor Surgery; III. Tenotomy; IV. Ligature of Arteries; V. Median Operations; VI. Amputation of the Upper Extremity and Removal of the Breast; VII. Amputations of the Lower Extremity; VIII. Resection of Entire Bones and Joints; IX. The Use of Certain Instruments. The work is illustrated by thirty-two woodcuts.

Mr. Maunder has brought out as yet only the first part of his book. This part contains seven chapters: the first two comprising an account of the Compress, Bandage, Ligature, and some other preliminary important matters; the third, Secondary Operations on the Vascular System; the fourth, Operations on the Arteries; the fifth, the Ligature of Special Arteries; the sixth, Operations on the Bones; and the seventh, Operations on the Surface of the Body. The woodcuts illustrating the work are sixty-six in number.

We might almost say—

"Non nostrum tantas componere lites";

both books are so good; yet we are inclined to think, if a preference has to be made, that Mr. Maunder's work is most likely to be useful to the incipient operator. The instruction which he gives in the early chapters regarding things small in appearance but great in importance, is by no means an unnecessary or a misplaced task; and, in comparing the descriptions given by the two authors of various operations, but especially on the ligature of special arteries and the resection of individual bones, that the carefully detailed instructions of Mr. Maunder are more likely to lead to a right understanding of what is meant than the more brief descriptions given by Mr. Smith.

We anticipate that, when Mr. Maunder's work is completed, it will deservedly be a favourite with the student who is endeavouring to acquire operative skill on the dead body, as well as with the practitioner who, while amputations, resections, and the like, are not things of daily occurrence in his profes-

sional life, may yet sometimes be called on to perform an operation, regarding which he would be glad to have his memory refreshed or to receive some hints.

In expressing this opinion of Mr. Maunder's work, we do not wish to dispraise that of Mr. Smith. Our preference has merely been the result of an impartial comparison; and, if Mr. Smith's book had appeared alone, we should in all probability have said that it was good. We can recommend it safely to those who are anxious to obtain information at once regarding the operative points on which Mr. Maunder has not yet treated.

Inventions and Appliances
IN
MEDICINE AND SURGERY.

A NEW TREPHINE.

Dr. G. A. D. Galt of Virginia, United States, has devised a new trephine, with the object of avoiding injury of the membranes or substance of the brain. The instrument consists of a truncated cone, with peripheral teeth arranged in a spiral direction, and oblique crown teeth. When it is applied, the peripheral teeth act as a cutting wedge, so long as counteracting pressure acts on the crown teeth; on removal of that pressure by the division of the cranial walls, its tendency is to act on the principle of a screw, but, owing to its conical form and the spiral direction of the peripheral teeth, the action ceases. Dr. Galt says that he has operated on the dead subject with it twenty times, and has never succeeded in wounding the membrane, although he endeavoured to do so. The editor of the *New York Journal of Medicine*, in noticing the instrument, says that it has been examined by the members of the surgical section of the New York Academy of Medicine, and has, after repeated trials, been found fully to answer the design of the inventor. The instant the crown teeth cut through the internal table, all action ceases, and it is impossible to turn the crown.

British Medical Journal.

SATURDAY, JUNE 16TH, 1860.

HOSPITAL DISTRESS.

The foreigner who looks into the advertising pages of the *Times*, cannot fail to be struck with the apparently bankrupt condition of our London Hospitals. Day by day a column and a half of most urgent advertisements assure the public that, unless immediate aid is given, half their wards must be shut up. Side by side with these begging appeals, are to be found others, equally pathetic, imploring aid for the completion of hospitals, the necessity for which is more than doubtful. In one instance, indeed, the glaring contradiction involved in these two appeals is monopolised by one institution—St. George's Hospital. Last year an extra story was added to this building; to-day an advertisement appears in the columns of the *Times*, stating that "if the public do not, by increased subscriptions and donations, enable the governors to meet the deficiency (of income with respect to expenditure) *they will be compelled to close several of the wards!*" Can the force of audacious coolness further go?

But let us ask in sober calmness, what is the cause of the growth of "charitable" bricks and mortar, and what is its tendency? To read the carefully worded advertisements, it would appear that hospitals, in the metropolis at least, were erected solely on the behalf of suffering humanity; and that the more we build, the better for society. Anyone who knows anything of the working of our metropolitan charitable institutions, is fully aware how far this is from the real—and we must add, in too many cases, the vulgar—truth. It is noticeable that most of our new hospitals are dedicated to the treatment of special diseases; and it is further observable that most of these have originated in the energetic action of some individual. The germ of such buildings is the dispensary. An energetic surgeon makes up his mind to step to fame and fortune by means of bricks and mortar. But, first of all, he must hit upon some striking speciality—the "Dispensary for the Treatment of Inverted Eyelashes", for instance. A quiet house is taken in a side street, patrons and patronesses are canvassed for, and in an incredibly short space of time a goodly sprinking of the aristocracy have been found to pledge themselves to serve suffering humanity and Mr. ——, in the matter of inverted eyelashes. There is an annual list of subscribers, and the accounts are of course audited; but possibly a more searching inquiry than *dilettante* auditors are likely to give, would prove that Mr. —— in his account with poor humanity has much the best of it. This goes on for a certain number of years, when it is found that eyelashes are becoming inverted in alarming numbers; indeed, there are carefully got up statistics to prove that every tenth person is suffering from this terrible disease, the study of which needs a larger sphere than the dispensary with its 20,000 (!) cases per annum, can possibly afford—in short, the dispensary bud must expand into a hospital. There are certain persons who seem to have been born only to be manipulated out of their money for the erection of new hospitals. It may be incontestably proved that inverted eyelashes can be treated in the old established hospital close at hand; but that fact seems never to have entered the thoughts of the gentlemen and ladies who so obsequiously follow the lead of the ambitious Mr. ——, who is determined that there shall be a building devoted to nothing but misplaced eyelashes, and perhaps—but this is of course quite under the rose—to himself.

In due course of time, the special hospital is completed. The old woman who used to sweep out the dispensary is converted into the proud hall-porter; the small table in the back room is developed into the ample board-room; the matron and the house-steward stand in respectful attitudes; and Mr. —— is proudly conscious of the pinnacle of human greatness that he occupies (in his subordinates' eyes, at least), when the Board become perfectly conscious that the "establishment" is eating up all their means, and that, unless "a charitable public," etc., come forward, thousands of inverted eyelashes will be left to their miserable fate. Such is the history of half the special hospitals at present existing in the metropolis. Founded in the grossest self-seeking on the part of some individual, they are matured only through a system of mendicancy already strained to the uttermost, and which sooner or later must give way.

But let us ask, Do these special hospitals subserve to the education of pupils? Most decidedly not. Their tendency is to starve the general hospitals, where the schools are established, of that variety of cases which are so instructive to the

future practitioner. Moreover, this splitting up of specialities with a more than Egyptian minuteness has a tendency to destroy that unity of disease which the philosophic mind should always keep in view. The hospitals for inverted toe-nails and for inverted eyelashes may turn out clever operators in their very confined departments of surgery; but they will never furnish great surgeons, or advance the art beyond mere manipulative smartness.

There are certain large specialities, of course, to which our argument does not apply; but these exceptions must be patent to the reader. It is in surgery, more than in medicine, that we have erred in this respect. Let us ask, for instance, what possible necessity there is for the imposing looking building unfinished on the Fulham Road—the future Cancer Hospital? Is there anything in the treatment of this "Fell" disease which requires its isolation from other surgical cases? What peculiarity is there, again, in the treatment of diseases of the rectum, that a special hospital should be devoted to them? And if there is no reason in favour of such hospitals, independently of the scientific and educational evidence against them, there is the one great financial reason, that they squander the means of the charitable. Every one of these petty hospitals has its working staff, besides the building itself, the expense of keeping up which, in many cases, is the chief charge which tender-hearted and humane people are called upon to pay. It is this useless multiplication of machinery which is tending to exhaust the purses of the charitable, and to bring the principle of voluntary contribution into bad odour; and we most heartily hope and trust that our great provincial cities and towns will, in this respect, look upon our London practice as a matter to be avoided, rather than to be servilely followed.

THE WEEK.

AT the meeting of the Irish Medical Association, held in Dublin, on June 4th, the chairman, Dr. Mackesy, referred in his address to the representation of the medical profession in Parliament. He stated that the following memorial on the subject had been some time ago presented by the President and Council of the Royal College of Surgeons of Ireland.

"*To the Right Hon. E. Cardwell, Her Majesty's Secretary of State for Ireland.*

"SIR,—We, the President, Vice-President, and Members of Council of the Royal College of Surgeons in Ireland, beg leave, through you, to bring under the notice of Her Majesty's Government the claims of the Fellows and Licentiates of this College to parliamentary representation. These claims are based on the following facts, which we now respectfully submit for your consideration:—

"1. That, were our prayer complied with, the number of our constituency would be very considerable, far larger than many now considered entitled to this privilege, there being at present on our rolls 397 Fellows and 1210 Licentiates, making, in all, a gross number of 1607 registered surgeons available to form our constituency.

"2. That subjects affecting the interests of our profession are constantly under the consideration of the Honourable Members of the House of Commons, and that where our interests are concerned, and where it is indeed difficult, if not impossible, to find a member of said House sufficiently conversant with such topics as to treat them with the justice that their importance demands, it is but right to allow us a representative to watch over and to protect said interests.

"3. That topics, vitally affecting the interests of the community at large, in a hygienic, sanitary, and medical point of view, both in the public and in the civil services, are constantly under discussion in the House of Commons, and that serious injury to the common weal has resulted from there not being present in the House a representative, by education, fitted to take part in such discussions, and by his professional knowledge and experience to assist the members in arriving at conclusions that would prove beneficial and serviceable to the general welfare.

"4. That, directly or indirectly, all the other learned professions are represented in Parliament, the medical profession being the sole exception, and that the very nature of their avocations, whilst actively engaged in the pursuits of their profession, debars them from any opportunity of cultivating either a reputation or local connexion likely to lead on to their being selected as representatives for any popular constituency, and that, inasmuch as the honour of a seat in the House is never likely to forward their professional views, they cannot be expected to contest either county, city, or borough representations, and that, therefore, the only way left open to them to enter Parliament is by securing for their own body a parliamentary representation.

"5. That our preliminary and professional education would qualify us to take part in any discussion of an imperial or domestic character, as well as of a more strictly professional nature, our Fellows and Licentiates, as a class, being necessarily highly educated, of enlarged and liberal views, and of varied attainments.

"6. That the present system of Medical Registration appears to us to have much simplified any difficulties that otherwise might have suggested themselves in carrying out this proposed arrangement, furnishing us, as it does, with an authentic list of all those that would be entitled to exercise this new professional parliamentary franchise."

The receipt of this had been simply acknowledged by Mr. Cardwell. Dr. Mackesy said that he was particular in bringing under notice the exertions made by the Association and by the Royal College of Surgeons in Ireland towards promoting this most important object; for to those exertions might be attributed the favourable view of medical parliamentary representation now taken by the profession, and by a larger number of the educated classes. Lord John Russell had introduced a Bill giving a large increase of franchise to the poorer classes, but it did very little for the educated classes. He had proposed to give a member to the University of London, and one to the Universities of Scotland; but the educational classes of Ireland had not been recognised at all; and Dr. Mackesy hoped the Irish members would not allow the measure to pass unless that defect was removed. The University of London and the Universities of Scotland, in both of which the medical element prevailed to a considerable extent, would not be true to themselves if they did not elect medical men to represent them. It was gratifying to find a man in the high station of Sir Charles Locock declaring his intention of offering himself as a candidate to represent the London University in the House of Commons; and he trusted the profession would ere long be adequately represented in Parliament; for in the Universities of Oxford, Cambridge, and Trinity College, the medical element appeared to be ignored, and all the professions they sought to conciliate were the Church and the Bar. This might be attributed to the medical constituents belonging to these universities not acting in concert and insisting on having their rights recognised.

The medical officers of the navy, it will be seen in our news columns, have testified their grateful recognition of the important services rendered to them by Sir John Pakington, by placing an excellently executed bust of the right honourable baronet in the largest of our naval hospitals. In that place, the bust of the late First Lord of the Admiralty most

fittingly accompanies that of Lord Melville—a man of like mind, and whose name is also honoured among naval surgeons. The excellent address of Dr. M'William removes the necessity, on our part, of making any comment or explanation. We have only to add that, since the placing of Sir John Pakington's bust in Haslar, a duplicate of it has been presented to Lady Pakington: so that, while the bust in the hospital will bring before future generations of naval medical men the name and outward semblance of one who has gained for himself the reputation of a benefactor of the service, the copy will bring to its possessors the pleasing remembrance of good actions followed by hearty gratitude.

Since our last issue, we have almost daily received Birmingham papers, containing letters from Mr. Sampson Gamgee, in which he acknowledges the receipt of medicines and surgical appliances for the use of Garibaldi's army, as well as of sums of money, which he has expended in the purchase of drugs, calico, flannel, instruments, etc. We hope that before this the first portion of the stores, with the medical officer in charge, will have reached Sicily in safety, and that the rest will soon follow. No ship of a properly civilised nation would capture or detain the vessel in which they were being carried. The surgeon in charge is Dr. Albert Monastier.

Among the new Fellows admitted into the Royal Society on Thursday week, were Dr. C. E. Brown-Séquard; Joseph Lister, Esq., of Glasgow; J. T. Quekett, Esq.; and Dr. Edward Smith.

THE LATE THOMAS POYSER, ESQ., F.R.C.S.

WE are sorry to announce the death of Thomas Poyser, Esq., F.R.C.S., of Wirksworth, which took place on Monday, June 11th, after a very brief illness.

For fifty years Mr. Poyser had been the leading practitioner at Wirksworth and the adjoining district of Derbyshre. His mind was highly cultivated, and his extensive reading, added to his great experience, enabled him to bring to bear upon his profession all the known resources of our art. He had seen much and thought much, and has left valuable practical information in two ably written papers which appeared in the *London Journal of Medicine*, viz., "Cases and Dissections, chiefly in Reference to the Uncertainty of Diagnosis"; and "Illustrations of the Difficulties which beset some cases of Disease".

His kindness of heart, cheerful disposition, and warmth of friendship, endeared Mr. Poyser to all who knew him; and it is no figure of speech to say, that by a wide circle his loss will be long and deeply regretted.

Association Intelligence.

LANCASHIRE AND CHESHIRE BRANCH.

THE twenty-fourth annual meeting of this Branch will be held at Manchester, on Thursday, June 28th, under the presidency of M. A. EASON WILKINSON, M.D.

Gentlemen who intend to bring forward cases or communications are requested to send notice to the Honorary Secretary as early as possible.

A. T. H. WATERS, M.R.C.P., *Honorary Secretary.*

Liverpool, May 22nd, 1860.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Twenty-Eighth Annual Meeting of the British Medical Association will be holden in Torquay, on Wednesday, Thursday, and Friday, the 1st, 2nd, and 3rd days of August.

President—JAMES R. W. VOSE, M.D., F.R.C.P., Liverpool.

President-elect—C. RADCLYFFE HALL, M.D., F.R.C.P.L. and E., Torquay.

It is requested that all members who propose to read papers will communicate with

PHILIP H. WILLIAMS, M.D., *General Secretary.*

Worcester, March 29th, 1860.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
EAST ANGLIAN. [Annual Meeting.]	Newmarket.	Thurs., June 21st, 2 P.M.
MIDLAND. [Annual Meeting.]	The Exchange Rooms, Nottingham.	Thursday, June 28.
LANCASHIRE AND CHESHIRE. [Annual Meeting.]	Manchester.	Thursday, June 28th.
NORTH WALES. [Annual Meeting.]	Royal Hotel, Rhyl.	Tues., July 3rd, 1 P.M.
BATH AND BRISTOL. [Annual Meeting.]	Mineral Water Hospital, Bath.	Thurs., July 12th, 3 P.M.

[To prevent delay, Reports of Branch Meetings should be sent direct to the office, 37, Great Queen Street.]

ADMISSION OF MEMBERS, AND PAYMENT OF SUBSCRIPTIONS.

THE following are the Laws of the Association regarding the ADMISSION of MEMBERS, and the PAYMENT of their SUBSCRIPTIONS.

"*Admission of Members.* Any qualified medical practitioner, not disqualified by any bye-law, who shall be recommended as eligible by any *three* members, shall be admitted a member at any time by the Committee of Council, or by the Council of any Branch."

"*Subscriptions.* The subscription to the Association shall be One Guinea annually; and each member, on paying his subscription, shall be entitled to receive the publications of the Association for the current year. The subscription shall date from the 1st January in each year, and shall be considered as due unless notice of withdrawal be given in writing to the Secretary on or before the 25th of December previous.

"If any member's subscription remain unpaid twelve months after it shall have become due, the publications of the Society shall be withheld from such member until his arrears be paid.

"The name of no member shall remain on the books of the Association, whose arrears extend over three years; but the omission of the name from the list of members shall not be deemed, either in honour or equity, to relieve any member from his liability for the subscriptions due for the period during which he has availed himself of the privileges of membership."

Either of the following modes of payment may be adopted:—

1. Payment by Post-Office Order to the Treasurer (Sir C. Hastings, M.D., Worcester), or to the undersigned.

2. Payment to the Secretary of the Branch to which the member belongs.

3. Members can also make their payments through the publisher of the BRITISH MEDICAL JOURNAL, Mr. Thomas John Honeyman, 37, Great Queen Street, Lincoln's Inn Fields, W.C., by post-office order, payable at the Western Central District Office, High Holborn.

PHILIP H. WILLIAMS, M.D., *General Secretary.*

Worcester, June 1860.

YORKSHIRE BRANCH: ANNUAL MEETING.

THE Annual Meeting of the Yorkshire Branch was held at the Cutlers' Hall, Sheffield, on Thursday, June 7th; W. D. HUSBAND, Esq., in the Chair. There were also present: James Allen, Esq. (York); W. Anderson, Esq. (York); S. Arden, Esq. (Sheffield); J. H. Aveling, M.D. (Sheffield); M. M. de Bartolomé, M.D. (Sheffield); F. Branson, M.D. (Baslow); J. Benson, Esq. (Sheffield); C. Chadwick, M.D. (Leeds); W. Favell, Esq., and W. F. Favell, Esq. (Sheffield); J. Haxworth, Esq. (Sheffield); T. Hornby, Esq. (Pocklington); G. Hornby, Esq. (York); J. C. Hall, M.D. (Sheffield); J. Hall, Esq. (Sheffield); H. Jackson, Esq., W. Jackson, Esq. (Sheffield); H. Keyworth, Esq. (York); T. M. Leak, Esq. (Hemsworth); H. Merryweather, Esq. (Sheffield); T. Nunneley, Esq. (Leeds); J. Nicholson, Esq.; W. Skinner, Esq.; C. Smith, M.D.; T. Simpson, M.D. (York); W. W. Tinsley, Esq.; Henry Thomas, Esq. (Sheffield); J. Wightman, Esq. (York).

Report of the Council. "The recurrence of our annual meeting imposes on your Council the usual duty of passing in review a few of the most important circumstances affecting the interests of the medical profession which have occurred during the past year.

"They would, in the first place, congratulate you on the continued prosperity and undiminished usefulness of this the Yorkshire Branch of the British Medical Association.

"In their report to the last annual meeting, your Council felt it their duty to draw your attention to the fact that an unqualified practitioner in the district had been registered by the Medical Council. This appears to have been done solely on the ground that he held a Poor-law medical appointment under Gilbert's Act. In pursuance of a resolution then adopted, your Council presented a memorial to the Medical Council, asking that his name might be removed from the *Register;* and in due time they had the gratification of learning that this had been done. Since then, however, the person alluded to has moved the Court of Queen's Bench to cause his name to be replaced, and has obtained a decision in his favour, on the ground that the Medical Council had neglected to serve him with a formal notice of their intention. Your Council would suggest the propriety of again memorialising the Medical Council to take such further proceedings as may be necessary to bring this case to a legitimate and satisfactory conclusion.

"During the past year, the Royal College of Surgeons have granted their diploma to several applicants who had not gone through the course of professional study required of ordinary candidates. Your Council feel that, in thus acting, the College has not only not evinced a just consideration for the honour and interest of the profession, but has committed an act of gross injustice to those members who have complied with all its requirements.

"Your Council have seen with regret a letter from the President of the Medical Council, in the journals, defending this objectionable course adopted by the College.

"Your Council have always sympathised warmly with the Poor-law medical officers in their efforts to obtain a more adequate remuneration for their services. They cannot, however, regard with approval the Poor-law Medical Relief Bill introduced by Mr. Pigott, considering, as they do, that that Bill contained several very objectionable clauses. They trust that the new Bill which Mr. Pigott has promised to introduce next session will be free from the same imperfections; and they would urge upon every member of the Association to use all the influence he may possess in forwarding the adoption of some satisfactory measure.

"Your Council earnestly invite more liberal attention to the Benevolent Fund connected with the Association, and are unwilling to believe that the affluent members of the profession can regard with indifference the cares and necessities of their less fortunate brethren. They feel assured that the slender support this Fund has received from this Branch can only have arisen from ignorance on the part of the members of the benefits which may be insured to many a suffering brother from the well bestowed charity of his more successful neighbour. The existence of a well managed institution in part of our district—'The West Riding Medical Charity'—which has largely relieved local wants, no doubt accounts for a want of support from our members in the West Riding.

"A mournful duty now devolves upon your Council. Since our last meeting, one of our active members has been numbered with the dead. On the last occasion of our assembling in this Hall, the late Mr. Reedal occupied the President's chair; and in this, as well as in his other situations in life, his extreme urbanity of manners, his high moral worth, and his professional attainments, gained for him the confidence and esteem of all who had the pleasure of his acquaintance.

"In conclusion, your Council would impress upon the members generally the advantages which must arise from meetings such as the present, in which a kindly spirit of cooperation is induced, the grand principle of union enforced, and, while due attention is paid to the material interests of the profession, the claims of medical science are fully recognised, its progress watched, and the advantages which it offers eagerly embraced."

Dr. J. C. HALL moved, Dr. AVELING seconded, and it was resolved—

"That the Report be received and adopted."

Branch Council for 1860-1. Dr. HALL moved, Mr. LEAK seconded, and it was resolved—

"That the following gentlemen form the Council of the Branch for 1860-1:—J. Allen, Esq.; B. Dodsworth, Esq.; W. D. Husband, Esq.; H. Keyworth, Esq.; W. Matterson, Esq.; W. E. Swaine, M.D.; T. Simpson, M.D.; G. Shann, M.D.; and C. Williams, M.D. (York); C. Chadwick, M.D.; T. Nunneley, Esq.; W. Hey, Esq.; J. P. Garlick, Esq.; S. Smith, Esq.; and T. P. Teale, Esq. (Leeds); F. Branson, M.D.; H. Jackson, Esq.; W. Jackson, Esq.; J. Haxworth, Esq. (Sheffield); J. Ness, Esq. (Helmsley); H. Y. Whytehead, M.D. (Crayke); and T. Sandwith, M.D. (Beverley)."

Representatives in the General Council. Mr. H. JACKSON moved, Mr. J. ALLEN seconded, and it was resolved—

"That the following members be nominated to represent this Branch in the General Council during the ensuing year: F. Branson, M.D.; C. Chadwick, M.D.; W. D. Husband, Esq.; W. Jackson, Esq.; W. Hey, Esq.; T. Nunneley, Esq.; H. Y. Whytehead, M.D.; and T. Sandwith, M.D."

Place of Meeting next Year. Mr. LEAK proposed, and Mr. H. JACKSON seconded—

"That the next annual meeting be held in Leeds."

President-elect. Dr. CHADWICK proposed, and it was unanimously resolved—

"That Mr. Nunneley be the President-elect."

Registration of an Unqualified Person. Dr. CHADWICK moved, Dr. HALL seconded, and it was resolved—

"That the Council be again requested to memorialise the Medical Council on the subject of the registration of an unqualified person, as recommended in the Report."

The Royal College of Surgeons. Mr. NUNNELEY moved, Mr. H. JACKSON seconded, and it was resolved—

"That this meeting cannot forbear a strong expression of disapproval of the conduct of the Council of the College of Surgeons of England in admitting to its diploma many who have not fulfilled its requirements; an act manifestly unjust to those members of the College who have expended time and money in obtaining advantages which have been so recklessly bestowed on others. This meeting believes such a proceeding on the part of the Council to be injurious to the best interests of the profession and the public."

Fees to Medical Witnesses. Dr. CHADWICK brought forward the subject of the remuneration of medical men for attendance in the criminal courts of justice. Mr. Nunneley mentioned a case in which he had had immense trouble in conducting an examination for the detection of blood on some clothes of a supposed murderer, likewise some hair found on a stick and inside a hat; but when called into the witness box, Mr. Nunneley was only required by the prosecuting counsel to identify the stick. The Judge refusing to make an order for the payment of his fees, application was made to the Home Secretary; when Mr. Nunneley was politely informed that, as his evidence could not be called of a scientific nature, his claim could not be considered.

It was agreed that a recommendation be forwarded from this meeting to the Central Council of the Association to take the matter up, and bring the subject before the next annual meeting.

Votes of Thanks. Mr. JACKSON proposed, Dr. SIMPSON seconded, and it was carried by acclamation—

"That the best thanks of this meeting be given to W. D. Husband, Esq., the ex-President, for his services during the past year."

A similar vote was accorded to the Secretary on the motion of Dr. CHADWICK.

Cases and Communications. 1. On External Hæmorrhage:—

with a case of Hæmorrhage from the Saphena Vein. By W. Jackson, Esq.

2. Mr. H. Jackson exhibited several pieces of Bone removed from the Tibia of a Boy.

The members and visitors afterwards dined together at the Angel Hotel, under the presidency of W. Favell, Esq.

Reports of Societies.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, June 6th, 1860.

Edward Rigby, M.D., President, in the Chair.

Hydatidiform Bodies from the Uterus. Dr. Routh exhibited a specimen of hydatidiform bodies from the uterus. The history of the case was as follows:—Mrs. B., aged 35, a laundress, consulted Dr. Routh on the 22nd of March, suffering from menorrhagia, with slight procidentia. She had weaned her child on the 15th of July last, on the day preceding which the catamenia occurred. They did not again recur till the beginning of October. She, however, believed herself pregnant. The discharge persisted, off and on, till the time when she sought advice, never ceasing for longer than four days at a time. On the 1st of May she was examined: diagnosis—a blighted ovum of two or three months. She miscarried the next day, Dr. Clark, of Adelaide Terrace, Notting-hill, attending her. There was a good deal of hæmorrhage. A large number of hydatidiform bodies escaped during the miscarriage; and a considerable number were found, as usual, attached by small pedicles to the membranes; these were of a pinkish hue, and contained an albuminous fluid of an acid nature. The case did well.

Fibrous Tumours of the Uterus. Dr. Graily Hewitt exhibited, for Dr. R. Uvedale West, of Alford, a very large fibrous tumour connected with the uterus. The patient, a married woman, aged 53, died from hæmorrhage. The tumour had existed for nine or ten years. Menstruation had been profuse, though somewhat irregular, up to a year ago, when it ceased. The tumour, connected, but not very intimately, with the cervical part of the uterus, and of an irregularly globular shape, measured forty-two inches in circumference, and sixteen in diameter; it weighed forty-two pounds. On examining the tumour, Dr. Graily Hewitt had ascertained that its structure was that ordinarily found in fibrous growths connected with the uterus. The vagina appeared to have been drawn upwards and narrowed considerably, so much so that the os uteri could not be reached by the finger. It seemed probable that the fatal hæmorrhage resulted from rupture of one of the very large vessels which passed into the pedicle of the tumour, and which lay close to the vaginal wall.

Dr. Graily Hewitt also exhibited two other specimens of fibrous tumour of the uterus, in each of which several tumours were attached to the uterus by pedicles of varying length. These latter specimens were exhibited for the purpose of showing the extent to which tumours, originating in the uterus, were occasionally separated from that viscus.

A Description of Two Fœtal Monsters. By T. H. Tanner, M.D. The first specimen which the author exhibited was an excellent example of a double monster. In this obstetrical curiosity all the parts were in duplicate, with the exception of the thoracic and abdominal cavities and their contents. The organs of generation—those of a female—were complete in each infant. There was one umbilical cord and placenta.

After some observations on the origin of these bodies, attention was directed to the second case, which proved to be a good example of congenital umbilical hernia. The fissure in the abdominal parietes, though large, was seen to be limited to the epigastric region above the umbilical cord. This is just the part which naturally remains the longest open; but in the present instance an arrest of development had prevented the closure at that stage when a portion of the abdominal viscera is contained in the sheath of the umbilical cord. Below the umbilical region the integuments were in a healthy condition. The hernial sac had been formed of two coats—that is to say, externally by the amnion, and internally by the peritoneum. They had ruptured, so that the contents of the hernia were shown to have consisted of the intestines and liver, while at the upper part was the heart.

Cystic with Malignant Disease of the Ovary. Dr. Priestley exhibited an ovarian tumour removed from the body of a patient who had died in the Samaritan Hospital with all the symptoms of peritonitis caused by perforation. The tumour was united at its inferior portion with the posterior surface of the uterus. Here was a quantity of deposit, supposed to be of a cancerous nature, which was breaking down into the peritoneal cavity, and had effected an opening into the bowel. The intestines were glued together by recent lymph, and the interior of the largest ovarian cyst was lined by beautiful meshes of the same material. He considered a further examination necessary to determine if the softened deposit were really cancerous.

PHLEGMASIA DOLENS. BY W. TILBURY FOX, M.D.

The paper commenced with the statement that the general prevailing opinion that phlegmasia dolens was a disease dependent upon inflammatory changes (the result of local or general causes) in the vessels was too limited. The author passed in review the various states in which phlegmasia dolens occurred, viz.:—

1. As the sole local disease—as after abortion, removal of polypi, etc.

2. As part of a general disease, (*a*) either of virus origin—as puerperal fever, erysipelas, dysentery, etc.; (*b*) or abnormal nutrition—as cancer, phthisis, etc.

3. As complicating other local diseases—as iliac abscess, dislocations, suppressed menstruation, etc.

A principle was then noted, clearly defined, upon which its evolution depends—namely, the existence of obstructive disease in both veins and lymphatics. The causes of this obstruction might be ranked as extrinsic and intrinsic in regard to the vessels: the extrinsic being compressed under the head of pressure from without; the intrinsic, all producing coagulation, being subdivided under the heads of—

1. True phlebitis conjoined with angeioleucitis.
2. Thrombosis.
3. A mixture of these twain.
4. Preternatural coagulability of the blood doubtful (merely a favourable condition).

The main point insisted upon was that phlegmasia dolens, except in its epidemic form, is in the majority of cases a pure thrombus, produced by sudden absorption of morbid fluid, the (compensating) effect of sudden loss; the class of cases in which it occurs—viz., diseases accompanied by breach of surface—ex., after labour, cancer, phthisis, dysentery, after removal of polypi, being especially favourable to such an occurrence. This mode of production applies equally well to many cases of œdema, which pressure leaves unexplained, the difference between the two cases being that in phlegmasia dolens the lymphatics are involved in addition to the veins.

The President observed that the subject of phlegmasia dolens was one of considerable extent and intricacy. The peculiar tense swelling of a limb known by this name occurred under different pathological forms, and arose from different causes. In some cases it arose from venous, in others from lymphatic, obstruction. He had lately seen a case of phlegmasia dolens affecting the arm of a patient with a remarkably feeble circulation, although a fine healthy woman to look at. It was precisely one of those cases of coagulation in the veins which Dr. Humphry of Cambridge had lately described in his excellent paper. He had followed Dr. Humphry's practice of giving ammonia for the purpose of dissolving or breaking down these coagula, and in the present instance had combined it with bark with the best effects. He had also lately seen a singular case, in a man of temperate habits, not only affecting the right arm so that he could scarcely put it into a sling, from the impossibility of bending it, but implicating also both sides of the neck and face. He had availed himself of Dr. Burrows' great experience, who, after a careful examination of the case, and having ascertained the absence of sound on percussion and auscultation over a circumscribed space corresponding to the anterior mediastinum, had diagnosed the presence of some malignant disease in that direction, which had compressed some of the large venous trunks. He could not help thinking that the rapid and enormous swelling from venous congestion which followed the bite of a venomous snake was in great measure due to the coagulation of blood in the veins of the bitten part. There could be no doubt that phlegmasia dolens was frequently caused by the absorprion of putrid matter, as seen after labour and occasionally after malignant disease of the uterus. In this latter case it never occurred whilst the patient had strength to sit up and walk about; but when the advance of the disease confined her to the horizontal posture, the putrid

discharges collected in the vagina, and absorption was apt to follow.

Dr. GRAILY HEWITT had devoted considerable attention to the subject treated of in Dr. Fox's elaborate paper. There were two questions for solution—the one being the *nature* of the pathological changes which take place in phlegmasia dolens; and the other the *cause* of these changes. With reference to the nature of the changes observed, he conceived that they consisted in coagulation of the blood within the veins, alone, and he could not admit that the lymphatics were primarily or necessarily affected. The arguments used by the author, on this point, did not appear to him by any means convincing: the fact that phlegmasia dolens had not been observed in certain cases of obliteration of the lower cava, did not of necessity support the view of the question put forward by the author. The appearances presented were due to coagulation in the veins, and almost complete obstruction to the circulation. These changes were now known, chiefly in consequence of the researches of Virchow, to be due, not to phlebitis, but to coagulation. Then as to the cause of the coagulation, the author had, he believed, correctly, as well as ingeniously, explained that it might be produced by the action of septic matter introduced into the cavity of the veins; but he would himself explain the occurrence of coagulation in the veins in that series of cases, or certainly a large proportion of them, coming under the notice of practitioners in midwifery, in another way. Two years ago he had published in the *Lancet* some remarks "On Coagula formed in the Veins during the Puerperal State," and of several causes there alluded to as leading to the coagulation in question, he would now refer to only two—one of these being deficient contraction of the uterus after delivery; and the other, the occurrence of hæmorrhage. The influence of deficient contraction was very important. The uterine sinuses remaining patent were necessarily filled with coagula, and these coagula, of small size normally, were, in cases of deficient contraction, much larger. The coagulation spread upwards from these nuclei, and, when the iliac veins became invaded, the phlegmasia dolens occurred. The existence of these large, loose coagula, he would remark, also favoured the introduction of septic matter. Then, again, in cases of hæmorrhage, the tendency to the occurrence of coagulation in the veins was, as he had endeavoured to explain, increased; but he believed that this resulted rather from the loss of contractile power in the uterus, the effect of the hæmorrhage, than from absorption of septic matters. Hæmorrhage, undoubtedly, favoured absorption, although, perhaps, not to the extent insisted on by the author. The recognition of the effect of imperfect contraction of the uterus in inducing coagulation, he conceived to be of great importance in practice; and he believed that phlegmasia dolens would be rarely observed if steps were always taken to secure due contraction of the organ after delivery.

Dr. DRUITT said that phlegmasia dolens was usually treated of as an obscure and intricate disease, but that most of the obscurity arose from the unfortunate circumstance that it had been too much treated as if it were a puerperal disease solely, and had not been viewed in its true relation to other diseases; whereas it was by no means confined to the puerperal state; and, instead of being altogether *sui generis*, it was but one specimen of a very large and natural pathological family. Certainly the author of the paper before the Society had not fallen into the former of these errors; on the contrary, the Society had to thank him for a very copious and interesting collection of cases occurring from various causes besides parturition; but, as regards the true pathological place of the disease, the author seemed to have just missed seeing it. It appeared to him (Dr. Druitt) that it was impossible to regard phlegmasia dolens otherwise than as one member of that class of pathological exudations which includes also the diffuse inflammation of the areolar tissue, the phlegmonous erysipelas, carbuncle, and the effects of snake-bite, which last the author had alluded to, although he did not seem to appreciate the fact that it afforded a complete solution of the phenomena of the disease under consideration. A poison introduced into the areolar tissue, whether locally or through the medium of the circulation at large, was all that was required to explain the phenomena. What was there more wonderful in phlegmasia dolens than there was in the fact that a small portion of decaying lobster introduced into the stomach sufficed to cover the skin with the large white blotches of urticaria? or that a small portion of virus introduced under the cuticle will produce the enormous swelling of erysipelas or diffused inflammation? or, again, that a snake-bite will cause a whole limb to swell suddenly and enormously? The analogy of these cases to phlegmasia dolens is absolutely perfect. In one case, which the speaker published in the *Surgeons' Vade-Mecum*, a gentleman had a small, old sinus in the ham; this festered; the matter putrefied; swelling ensued, spreading upwards as well as downwards, till the limb was of enormous size, tense, and firm; symptoms of general pyæmia followed, and death. Now in this, as in the other analogous examples, could it be said that obstruction of the veins or lymphatics was the essential condition of the disease? Surely not; for obstruction of veins and lymphatics might exist without phlegmasia dolens—and exudation, which was the essence of phlegmasia dolens, might exist without venous obstruction. It was quite a return to the pathology of the sixteenth century to assert that obstruction was the cause of a true pathological exudation. Obstruction must always produce its mechanical effects, such as œdema; but there was no obstruction which could account for the production of phlegmonous erysipelas or carbuncle, and the assumption of obstruction as the cause of phlegmasia dolens was unnecessary. Solidification of the blood in the veins occurred in erysipelas as in phlegmasia dolens, but only as a concurrent effect. The true pathology of the disease was that which the author had touched, without grasping—namely, that a poison, having been imbibed from a wound or ulcer, produced not merely coagulation of blood in veins, but that yet undefined change in the relation of the blood and tissues which caused a peculiar exudation. No one, in the present state of pathology, can pretend to define that condition absolutely; but if any one thing appeared at the present day certain, it was that not mere obstruction, or any other change in what was called the "action" of bloodvessels and absorbents, could generate a true pathological exudation, to which class the disease under consideration belongs.

Dr. BARNES thought that the paper was an excellent example of the advantage of seeking for illustration of what might appear a special subject in the wide range of general pathology. Obstetric science had lost much from the narrow exclusive manner in which it was cultivated. While the author deserved praise for his research, he (Dr. Barnes) could not, however, but feel surprised that no reference had been made to the valuable essays of Mr. Henry Lee and Dr. Mackenzie. The essay of Dr. Mackenzie, especially, must be regarded as the most admirable and complete contribution to the pathology of phlegmasia dolens yet published. The speaker did not agree in the suggestion that hæmorrhage disposed to phlegmasia dolens by favouring imperfect contraction of the uterus, and the consecutive propagation of the coagula formed in the sinuses to the pelvic veins. Hæmorrhage acted, in his opinion, by increasing the absorbing function. The treatment by ammonia, referred to by the President, he had found the most useful. Since the researches of Dr. Mackenzie, this plan was established on a sound pathological basis.

Dr. Fox, in reply to the objections of Dr. Graily Hewitt, said he could not disallow the lymphatics a share in the disease. Would Dr. Hewitt explain the difference in the character of the swelling in obliteration of the inferior vena cava and the innominate vein (for there was a difference; in the latter case, the swelling was different from œdema, and more like plegmasia dolens), except upon the fact that the lymphatics were obliterated in the case of the innominate? Then, again, Dr. Rigby's well known case (*Medical Gazette*, 1835), where no disease but that of the lymphatics existed, was surely sufficient to establish the participation of the lymphatics. In regard to the theory of the production of phlegmasia dolens, Dr. Hewitt's explanation would only account for the puerperal cases, and not those of cancer, phthisis, dysentery, ulceration, etc. The other objections of importance came from Dr. Druitt, who denied the mechanical cause of the disease. Well, what answer could be made to such cases as that described in the paper, where a cancerous tumour pressed on the iliac vessels, and where phlegmasia dolens appeared, with great pain; but when the tumour descended into the pelvis, and got up behind the bladder to the other side, the pressure being removed, the phlegmasia dolens went at once, with the pain. With regard to the other point which Dr. Druitt said the author had missed —namely, the pathological state, the exudation into the cellular tissue—it was far too important a subject to be introduced into the paper cursorily, because it involved all the late views of Virchow; but it should be dealt with specially. All discussion turned upon the use of fibrine in the economy. Virchow, Zimmermann, Cappie, and Simon, believe it to be a result of change of cellular tissue (an early condition being fibrogen), and brought to the blood by the lymphatics. That fibrine was not excrementitious, seemed evident from the following:—1. Its use in the economy and capability of organisation. 2. Its

mode of production—namely, result of elaborative (digestive and glandular) act, and oxidation of albumen (Gairdner). 3. Its chemical composition, unlike waste products (ex. urea). If fibrine were excrementitious, albumen must be so too. 4. Its relation to the pale corpuscles, being increased or decreased in direct ratio with them. 5. Its relation to connective tissue, as shown by Liebig; hence it is the pabulum of areolar tissues. 6. In the lower animals, we see corpuscles existing before fibrine in the blood; in the articule series, we get fibrine, and with it the colourless nucleated cell; and seeing always that the pale corpuscles keep in the blood-stream outside, *i.e.*, next the walls—it seems not unlikely, indeed certain, that the pale corpuscles are related to the tissues outside in preparing the fibrine for the *connective* tissues. Where areolar tissue is, there are lymphatics; and *vice versâ:* hence there must be some close connexion. It seems that when the arterial blood reaches the areolar tissues, the latter draw upon it for pabulum, and the excess is removed by the lymphatics (which keep the balance of nutrition correct). Obstruct, as in phlegmasia dolens, the lymphatic circulation, and you get hypertrophy of the cellular tissue and gelatinisation in the areolæ. As to Dr. Druitt's assertion that the vessels are not at all concerned, that was a new pathology. How would he explain a simple case of hypertrophy from congestion the result of pressure? The author had not made a microscopic examination of the juices exuded from the limb in phlegmasia dolens.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

** In these lists, an asterisk is prefixed to the names of Members of the Association.*

BIRTHS.

Of a son, the wife of—

*Cayzer, Thomas, Esq., Aigburth, Liverpool, on June 9.

Of daughters, the wives of—

*Cleveland, W. F., Esq., Beaufoy Terrace, W., on June 6.

Hudson, John, M.D., at 11, Cork Street, W., on June 6.

Lingham, Henry B., M.D., at Acton, on June 9.

Schlund, Charles, M.D., Pentonville, on June 4.

*Thompson, Henry, Esq., Wimpole Street, on June 7.

MARRIAGES.

Baker, Thomas E., Esq., Surgeon, Burton Crescent, to Caroline, J. C., only surviving daughter of the late Cornelius Connell, Esq., of York Gate, Regent's Park, at Brighton, on June 7.

Belcher, Thomas W., M.D., Cork, to Mary M., eldest daughter of Thomas P. Bunting, Esq., of Manchester, on July 6.

Blenkinsop, William H., Esq., Surgeon, Binfield, to Esther, daughter of the late Joseph Astor, Esq., at Hillingdon, on June 6.

Cribb, Arthur John, M.B., Islington, to Emma R., third daughter of Edmund Barton, Esq., of Adelaide, Australia, on June 7.

Garden, A. M.D., Civil Surgeon, Ghazeepore, to Janet A., daughter of the late Major Malcolm Nicolson, Medras Army, at Ghazeepore, on April 19.

Hall, Stephen M. Esq., of West Derby, Liverpool, to Elizabeth Anne, only child of George M. Pritchett, Esq., Surgeon, Burton Crescent, at St. Pancras, on June 9.

Shilleto, James, Esq., Surgeon, Clipping Ongar, to Eliza J. L., third daughter of the late Robert G. Sparrow, Esq., of Deal, at High Ongar, on June 7.

Short, John, M.D., Madras Army, to Ellen J. A., daughter of the late A. Blythe, Esq., Surgeon, at St. George's, Bloomsbury, on June 6.

Stillwell, James, Esq., Surgeon, Spitalfields, to Sarah A. S., only daughter of the late Joseph Hill, Esq., Surgeon, of Lymne, Cheshire, at Eccles, on May 31.

Wright, the Rev. Arthur, Vicar of Welton-le-Marsh, to Harriet M., third daughter of the late James Hairby, M.D., at Hunelleby, Lincolnshire, on June 7.

DEATHS.

Batcheler. On June 6th, aged 70, Anne, widow of John Batcheler, Esq., Surgeon.

*Poyser, Thomas, Esq., Wirksworth, suddenly, aged 71, on June 11.

White. On June 8th, at Merthyr Tydvil, Isabella M., infant child of *John L. White, Esq.

APPOINTMENTS.

*Martin, J. Ranald, Esq., F.R.S., has received the decorations of the Civil Division of the Third Class (Companions) of the Order of the Bath.

PASS LISTS.

Royal College of Physicians of London. At the Comitia Majora, held on Friday, June 8th, the following members of the College were admitted into the Fellowship:—

Balfour, Thomas Graham, M.D., 10, Sumner Place, Onslow Square
Brown-Séquard, Charles E., M.D., 81, Wimpole Street
Bryson, Alexander, M.D., Barnes, Surrey
Cooper, Sir Henry, M.D., Hull
Davies, William, M.D., Bath
Evans, Thomas, M.D., Gloucester
Goodeve, Henry Hurry, M.D., Stoke Bishop, near Bristol
Headland, Frederick William, M.D., 37, Margaret Street, Cavendish Square
Morehead, Charles, M.D., Bombay
Ranking, William Harcourt, L.M.Cantab., Norwich
Tyacke, Nicholas, M.D., Chichester

Apothecaries' Hall. Licentiates admitted on *Thursday, June 7th*, 1860:—

Barnes, Wm. E. G., Newbury
Butler, Thos, M., Guildford
Carmichael, John R., Blyth, Northumberland
Clift, George, Redruth
Corin, Wm. J., Redruth
Hudson, Robinson, Bishop Wearmouth
Tofts, Henry, Cambridge
Williams, Evan E., Llandyssil, near Carmarthen

The following gentlemen also, on the same day, passed their first examination:—

Edwards, Walter, Bampton, Devon
Dooley, Wm., Liverpool
Skrimshire, John T., Sloane Street

For an assistant—

Rawcliffe, John L., Meltham

INAUGURATION OF A BUST OF THE RIGHT HON. SIR JOHN PAKINGTON IN THE MUSEUM OF HASLAR HOSPITAL.

A bust of Sir John Pakington, executed by Baron Marochetti and subscribed for by the medical officers of the navy, was placed in Haslar Museum on Tuesday week, in acknowledgment of the great benefits rendered to the medical department of the service during the administration of the right hon. baronet as first lord of the Admiralty. There were nearly 100 persons present, including Captain Superintendent the Hon. Geo. Hastings, the medical and other officers of the hospital and their families, the medical officers of the fleet, the Baron Marochetti, and the deputation, consisting of Dr. Nelson, R.N., Dr. Rees, Deputy Inspector-General, Dr. Beith, R.N., Dr. Dobie, and Dr. McWilliam.

After the deputation had been formally introduced to the Captain Superintendent by Dr. Nisbet, the medical inspector-general of the hospital,

Dr. McWilliam delivered an address, in the course of which, with reference to the selection of Haslar for the reception of the bust, he observed—In requesting permission of my Lords of the Admiralty—a permission which was most promptly and courteously granted—to place Sir John Pakington's bust here, we considered that nowhere was so appropriate for its reception as Haslar Hospital, the chief of naval hospitals, an institution moreover associated with some of the greatest triumphs of nautical medicine. It was here that Lind, justly designated by Sir Gilbert Blane "the father of nautical medicine," sent forth a century ago some of those remarkable works which, by first clearly pointing out what attention to the simple laws of nature could effect, contributed so largely to the health and comfort, and consequently to the efficiency, of our seamen, and gave him a high place among the benefactors of mankind. It was here also that, some years later, the able, energetic, warmhearted, but ill-rewarded Trotter, physician to the fleet under Lord Howe, gave to the world those plans for sanitary and administrative reform which have proved of lasting benefit to his country. Seldom have such talents, combined with so much zeal, been devoted to the public service as were those of Trotter.

A main object of his life finds emphatic expression in the dedication of his *Medicina Nautica* to Earl Howe, admiral, the flag officers, captains, and other officers of the fleet: "It has been my wish to make the duties of the medical profession subservient to the comfort and happiness of men that have earned laurels for you, and given security to their country." To have been the means of raising the health of our navy from the lowest standard—a standard which long made a ship of war an object of aversion to seamen—to a degree which has no parallel among any other class of men; to have enabled the Channel Fleet, whose very existence was at one time endangered by the terrible ravages of scurvy, to keep at sea in a state of health and high efficiency at a most momentous period in the history of this country; to have laid down a health system adapted to all time, to all classes, and to all climates, are no mean titles to glory; and that glory, so honourably earned, posterity has awarded to the illustrious names of Lind, Blane, and Trotter, whose peers in their own department—when we except Sir John Pringle and Jackson in the army—none of our public services have produced either before or since their day. Coming down to later times we have the honoured name, the reputation far beyond European, of Sir John Richardson—the undaunted traveller, the man of science, and the skilled and humane physician. This museum, where he long and usefully laboured, is of itself a monument of his devotion to those branches of science which he illustrated. And did it not misbecome me to speak of those still in office and authority, I could with great advantage to my case dwell upon the high professional attainments, the long and eminent services, the rare administrative power, the untiring solicitude for the welfare of the service throughout, which characterise the present director-general, and which, as they have beneficially influenced the past, augur favourably for the future of the department. I might advert to such names as Lord Brougham and the Duke of Richmond in the Lords, and Boldero, Wakley, and others, in the Commons, who have benefited the service by their advocacy of the cause of naval medical officers. It will, however, be sufficient if you will bear with me while I bring before you in a few words those statesmen who, while holding the office of First Lord of the Admiralty, thought it not unworthy of them to inquire into the condition of the medical department, and make such changes and improvements as the occasion demanded. And prominently in the foreground of such a view stand the first Lord Melville and Sir John Pakington. The bust of Lord Melville, executed by Chantrey, was placed here by a generation of our brethren now almost passed away, commemorative of him who, as First Lord of the Admiralty in 1805, obtained an order in council for the medical officers, which in that day was properly regarded as the greatest boon that had ever been granted them. To Sir Francis Baring and Sir Charles Wood, who in 1850 and 1855 respectively held the office of First Admiralty Lord, the gratitude of the medical officers is also due for the improvements effected in the department while under their rule. Those who read the warrant of Lord Melville of 1805, and that as well as the speeches in Parliament of Sir John Pakington, in 1859, will find a remarkable identity of object and purpose, even of the language used on the two occasions, and certainly an identity of view as to the course to be taken in respect to the medical officers. Both statesmen, in framing their respective warrants, appear to have considered it quite as much a privilege as a duty in endeavouring to provide for the case of our gallant sailors, subject to all the horrors of war, as well as to the baneful influences of climate, medical attendance not inferior to that enjoyed by the civil portion of the community. They were, in fact, actuated, not alone by the comparatively narrow motive of advancing the medical officers in rank, privilege, and emolument, but also by the higher consideration that the just elevation of those officers was conducive to the well-being of every other class of officers, indeed of the whole naval service, and consequently of this country, which in the hour of need looks to the navy as its main protection. For these reasons it has seemed to us that this bust of Sir John Pakington, executed by the Baron Marochetti, and alike admirable as a work of art and faithful representation of the right hon. baronet, can nowhere stand so appropriately as in this museum, in companionship with that of Lord Melville, who, like himself, was an eminent benefactor of the medical department of the royal navy.

Captain HASTINGS said it had afforded him much gratification to be present at this inauguration, and quite concurred in what had fallen from Dr. M'William with respect to Haslar being the most appropriate place for the bust of the right honourable baronet.

Dr. DOBIE, in thanking Captain Hastings for honouring the occasion by his presence, hoped that, if not contrary to the usage and rules of the service, he would be so kind as to convey to my lords of the Admiralty the sincere acknowledgments of the deputation for the courteous and prompt manner in which their lordships had acceded to their request to place Sir John Pakington's bust where it now stood, to which Captain Hastings replied that he should comply with the request of the deputation.

The bust, which is a beautiful work of art, and a most faithful representation of Sir John Pakington, was much admired by all present. It stands upon a pedestal of red granite, upon which there is an appropriate inscription.

Dr. Nisbet entertained a party at dinner, which included Captain Hastings, the Baron Marochetti, and the deputation.

QUEEN'S HOSPITAL, BIRMINGHAM. The election of two surgeons-accoucheur to the Queen's Hospital took place on the 11th instant, under the presidency of Thomas Lloyd, Esq., Mayor, who occupied the chair at the Town Hall, Birmingham. The polling continued from one till four o'clock; and at the close, the report of the scrutineers (Mr. W. J. B. Scott and Mr. A. Biggs) was: for Dr. Suckling, 63; Mr. Clay, 41; Dr. Hinds, 26; Mr. White, 18. The Mayor thereupon declared Dr. Suckling and Mr. Clay duly elected. Mr. W. J. B. Scott being called to the chair, Mr. Jacob Phillips proposed and Mr. George Taylor seconded a cordial vote of thanks to his worship for his impartial conduct in the chair; which was carried with acclamation.

LONGEVITY. The obituary of the *Times* of Tuesday last contains the names of *six* persons whose united ages amounted to 547 years, giving an average of ninety-one years and two months to each. The sexes were, three males and three females; the youngest being a gentleman aged 86, and the eldest a lady aged 100 years.

HEALTH OF LONDON—JUNE 9TH, 1860.

[*From the Registrar-General's Report.*]

		Births.	Deaths.
During week	Boys.. 842 / Girls.. 849	1691	969
Average of corresponding weeks 1849-58		1560	1079

Among the causes of death were—bronchitis, 57; pneumonia, 44; phthisis, 154; small-pox, 15; scarlatina, 22; measles, 51; diphtheria, 9; hooping-cough, 26. The deaths from pulmonary diseases (exclusive of phthisis) were 115, being 11·0 below the corrected average.

Barometer:
Highest (Mon.) 29·805; lowest (Sun.) 29·322; mean 29·618.

Thermometer:
In sun—highest (Fri.) 112·0 degrees; lowest (Sat.) 72·0 degrees.
In shade—highest (Fri.) 64·3 degrees; lowest (Wed.) 43·5 degrees.
Mean—51·9 degrees; difference from mean of 43 yrs.—5·3 degrees.
Range—during week, 20·8 degrees; mean daily, 14·7 degrees.
Mean humidity of air (*saturation* = 100), 85.
Mean direction of wind, S.W.—Rain in inches, 1·59.

TO CORRESPONDENTS.

Members should remember that corrections for the current week's JOURNAL should not arrive later than Wednesday.

Communications have been received from:—MR. R. HUGHES; DR. KIDD; DR. GUY; DR. A. T. H. WATERS; DR. MCADAM; MR. J. S. GAMGEE; DR. G. P. SMITH; MR. JAS. ROUSE; MR. W. ALLISON; MR. WM. JACKSON; MR. TAMPLIN; DR. GRAILY HEWITT; MR. T. M. STONE; MR. W. W. COOPER; DR. J. SUCKLING; MR. J. Z. LAURENCE; DR. C. M. BURNETT; and DR. LEONARD SEDGWICK.

ADVERTISEMENTS.

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The Thermo-Electrical System of MEDICINE, or the Science of Life, Health, and Disease; founded on the fact that the Blood, developing heat and electricity, the animating stimuli of all vital phenomena, is the source of Life; its normal and pure state, developing these stimuli in the required degree, constituting the condition of health; and its abnormal or vitiated state, developing these *short* of the necessities of the system, or in *excess* of the required degree occasioning that of disease. By CHARLES SEARLE, M.D., M.R.C.S.E. L. BOOTH, 307, Regent Street.

The Diseases of the Breast, and their TREATMENT. By JOHN BIRKETT, F.R.C.S.E., F.L.S., Surgeon to Guy's Hospital. 8vo, 12 plain and coloured Plates, 12s. 6d.
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BRITISH MEDICAL ASSOCIATION.

ANNUAL MEETING.

The TWENTY-EIGHTH ANNUAL MEETING of the BRITISH MEDICAL ASSOCIATION will be holden in TORQUAY, on Wednesday, Thursday, and Friday, the 1st, 2nd, and 3rd days of August.

President—JAMES R. W. VOSE, M.D., F.R.C.P., Liverpool.
President-Elect—C. RADCLYFFE HALL, M.D., F.R.C.P. L. & E., Torquay.

It is requested that all members who propose to read papers will communicate with the General Secretary.

Worcester, May 29th, 1860. PHILIP H. WILLIAMS, M.D.

THE GRAINGER TESTIMONIAL.

It is proposed to offer to Mr. R. D. GRAINGER, on his retirement from the duties of a Physiological Lecturer, some acknowledgment of his long and valued services. Mr. GRAINGER has expressed a wish that any testimonial should be in the form of a Scholarship, to be awarded at the School of St. Thomas's Hospital, with which he has for so many years been connected.

For the promotion of this object, it has been determined to establish a FUND, to which present and former pupils, as well as the friends of Mr. GRAINGER are invited to subscribe.

The following gentlemen have already consented to act upon the Committee:

The Right Hon. the Earl of Shaftesbury
The Right Hon. the Lord Lyttelton
The Right Rev. the Lord Bishop of Ripon
Sir John Musgrove, Bart., *President of St. Thomas's Hospital.*
Richard Baggallay, Esq., *Treasurer of St. Thomas's Hospital*
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Those who may feel anxious to assist in this expression of esteem, are requested to forward their names, and any subscriptions they may be willing to contribute, to SYDNEY JONES, Esq., 4, St. Thomas's Street, S.E.

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